The Hunterian Lecture
ON
SOME INFECTIONS OF THE TONSILS.

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(*Concluded from p. 1012.*)

STREPTOCOCCUS INFECTIONS.

THIS constant inhabitant of the mouth, fauces, and tonsils may live in apparent harmony with the individual during the whole course of his life. At times it causes serious lesions, and is perhaps the most important pathogenic organism in the tonsil. There is no doubt that several varieties are present; these differ in their morphology and cultural reactions and in their virulence and effect on inoculation. They are one of the commonest sources of acute infection, causing catarrhal inflammation, lacunar tonsillitis, tonsillar and peritonsillar inflammation, and suppuration. They not infrequently cause cervical bubo and suppuration, while they may cause septicæmia or endocarditis after their entry into the blood.

In addition to these acute manifestations, which are accompanied by fever and general illness, their effects may be more subtle. After an acute attack or even without it the tonsils may become permanently infected and be subject to recurring attacks of mild inflammation on the least provocation, not only during childhood or adolescence, but even well into adult life. It is probable that hypertrophy in childhood is due in part to the presence of these organisms. After infection, although no active signs be present in the tonsil, a continuous mild infection may be proceeding, as shown by a slight enlargement of the tonsillar lymph glands, general ill-health, and that type of anæmia due to the hæmolytic properties of the streptococcus poison. The tonsils may show all stages from mild inflammation to suppuration; they may hypertrophy or become in the final stages a shrunken fibrous body, containing débris in the lacunæ and being adherent to the pharyngeal wall. These manifestations of streptococcus tonsillitis are well recognised.

Rheumatism.

Perhaps one of the most important streptococcic infections is that modified variety which is associated with the production of rheumatism, and it is to this form that I shall devote most time.

The association of tonsillitis and rheumatism has been so well known and long established that the term rheumatic sore-throat has passed into general acceptance. Tonsillitis so often preceded an attack of acute rheumatism that the tonsil was suspected of being the possible entrance of some organism. It is chiefly owing to the work of Poynton and Paine that the various manifestations of this disease have been collected together into a homogeneous whole, and they have shown that this infection may manifest itself in almost any tissue or organ of the body. The investigations of Poynton and Paine on the organism they consider the cause of rheumatism, and the later and additional work of Beattie, Dixon, Walker, and others have shown that the organism found in acute rheumatism, although appearing in the lesion as a diplococcus, on cultural examination grows in chains and belongs to the streptococcus group. The evidence that this organism is the chief causative agent in the production of acute rheumatism is accumulating, and its acceptance amongst the profession is increasing.

The evidence that the tonsil is one of the chief sources of the organism is as follows. Rheumatic fever is often preceded by an attack of tonsillitis, and recurrence of the lesions may be preceded also by tonsillitis. The presence of the streptococcus of the rheumatic type in the tonsil has been experimentally proved. The tonsil can be found affected in most cases of rheumatism, and lesions can be found there in persons dying of endocarditis, acute or chronic. The original case of Poynton and Paine was that of a patient with chronic endocarditis. Following an attack of tonsillitis organisms were isolated from the tonsil showing the usual characters of their organism. On inoculation into a rabbit endocarditis was produced. These experiments have been so often performed by Poynton and Paine, all Koch's postulates being fulfilled, that the chain of evidence of this organism being the one concerned in the production of rheumatism seems complete.

A series of experiments of Beattie and Yates are important in this connexion. (Table VII.) Material from various lesions in the joints, throat, and blood was examined in 192 cases, rheumatic and otherwise, for streptococci. The organism was obtained in 48. Of these cases, 7 presented a definite disease and have no relation to the present question. Of the remaining 41 cases there was a rheumatic history in 31. The organism from these in 19 cases, or 61 per cent., on inoculation produced typical lesions in rabbits, these lesions being characterised by acute non-suppurative synovitis. Of the 11 negative results in rheumatic cases, 8 were from the tonsils. In each of these cases a single colony was subcultured, and there being many varieties of streptococcus present in the tonsil it may be presumed that a non-virulent form was obtained. If 2 additional cases, presumably rheumatic, are included, the positive results reach 70 per cent. in these cases, while in the non-rheumatic cases typical arthritis was not produced

TABLE VII.—*Inoculation Results (Beattie and Yates).*

Number of experiments.	Source.	Arthritis.	Septicæmia.	No effect.
	Rheumatic Cases.			
8	Synovial membrane	5	0	3
15	Throats	7	0	8
3	Blood	3	0	0
1	Cerebro-spinal fluid	1	0	0
1	Pyorrhœa alveolaris	1	0	0
3	Heart valve (vegetations) ...	2	1	0
	Non-rheumatic Cases.			
6	Synovial membrane	1	5	0
1	Blood	0	1	0
1	Appendix	1	0	0
1	Subcutaneous abscess	0	1	0
	Doubtful Cases (Tonsillitis without History).			
5	Tonsils	1	4	0

in a single instance. In the experiments with organisms obtained from the tonsils of those with a rheumatic history, 15 in number, a positive joint result was obtained in 7, or 47 per cent. Of inoculation from the tonsils where no history of rheumatism was obtained, 5 in number, septicæmia was produced in 4 animals and arthritis in 1, the latter being possibly of the rheumatic type.

Chorea.

It is interesting to note that a positive result was also obtained from the organism found in the cerebro-spinal fluid in a case of chorea. It has been shown that the organisms from the tonsils of rheumatic patients are capable of reproducing in animals acute synovitis and endocarditis. The same organism has been found in other lesions of rheumatism, especially chorea. The diplococcus rheumaticus has been isolated from 3 fatal cases of the condition by Poynton and Gordon Holmes, where it was found in the pia mater and endocardium. The histological characters of the brain lesion in these cases, together with the cultural findings, support the title given by these authors to this condition—namely, cerebral rheumatism.

Chorea of pregnancy is in the majority of cases probably identical with that of children. French and Hicks in an analysis of 29 cases found that 19 had a previous history of rheumatism, while 15 out of these 19 had suffered previously from chorea. In 3 fatal cases, which were associated with fever, endocarditis was found post mortem. Wall and Andrews in an analysis of 37 cases found a previous history of chorea in 23 cases; if to these be added other rheumatic manifestations 28 out of the 37 had suffered previously. They also quote Buist's figures, in which out of 266 cases of chorea during pregnancy 66 had previously suffered from chorea during childhood. In one case which I had the opportunity of examining the patient's attack of chorea during pregnancy followed an attack of tonsillitis, and I found the tonsils enlarged with evidence of absorption—enlargement of the tonsillar glands.

The relation of hypertrophied tonsils to Sydenham's chorea has been investigated clinically by Branson, who found that of a series of 75 children 21 per cent. had been operated on for enlarged tonsils and glands. Naso-pharyngeal lesions were present in 88 per cent. of these children with chorea, and 62 per cent. had enlarged tonsils or had been operated on for them. Showing the evidence of infection from their tonsils all these cases had enlargement of the corresponding lymphatic glands. In 1910 I advocated the removal of tonsils for chorea where infection was considered to be occurring from them. This measure has been attended with considerable success, and has shown that the tonsil is one of the chief sources of infection, but that others exist in the naso-pharyngeal region, one case being unaffected by the operation until a chronic suppurating ear was cured. The removal of the tonsil cannot be relied on with certainty to cure the condition at once, but presumably cuts off further infection, for as in other rheumatic lesions, particularly endocarditis, the organism may remain latent in the affected tissues for varying periods.

Chronic Arthritis and other Lesions.

There is also accumulating evidence that certain forms of chronic arthritis have a definite relationship to infection from the fore end of the alimentary canal, in which the tonsil takes a share.

Poynton and Paine have produced changes in the joints in rabbits by their diplococcus undistinguishable from rheumatoid arthritis in man. Beattie and Yates have also produced chronic arthritis by means of an organism obtained from a case of tonsillitis. Reinoculation from this joint produced similar changes in a second series of animals. They have shown that relapses are due to the reactivity of organisms lying latent in the synovial membrane, which they have proved that they are able to do for periods varying from a week to a year. Whatever other causes may be found for rheumatoid arthritis there is no doubt a certain number are due to infection from oral sepsis, and infected tonsils form an important part of this lesion.

In addition to the above-mentioned situations to which these organisms may be carried by the blood stream—namely, the heart, pericardium, meninges, or joints—occasionally they may pass into the appendicular artery and infect the appendix vermiformis. In spite of the large amount of operative work carried out in the treatment of appendicitis the mode of infection is still obscure, although the frequency of a streptococcal infection has been abundantly demonstrated. In the majority of cases the organisms invade the lining membrane directly, but in other cases the infection arrives by the blood stream. Appendicitis has been produced experimentally for some time by inoculating the blood with various organisms. Acute tonsillitis and appendicitis may occur at the same time. Kelly mentions that in 91 cases of acute appendicitis at the Johns Hopkins Hospital 3 were preceded by acute tonsillitis by a few hours. Finney and Hamburger also mention 3 cases of associated appendicitis, tonsillitis, and rheumatism. Poynton and Paine mention a case of associated tonsillitis and appendicitis. From both lesions they cultivated a streptococcus with identical appearances. That from the throat on inoculation produced arthritis, while that from the appendix when inoculated into 6 rabbits produced 1 case of appendicitis. In another series of experiments with the diplococcus obtained from a rheumatic joint, out of 8 animals inoculated arthritis was produced in all, while appendicitis was produced in 2. In the complete series of 16 intravenous inoculations 3 cases of appendicitis were produced. This would seem to bear out the noted occasional relationship of rheumatism to appendicitis.

Amongst other rheumatic lesions may be mentioned acute neuritis, which I have observed following an attack of tonsillitis. After successive attacks, the nerve of Bell, the anterior tibial nerve, the descending branches of the third and fourth cervical nerves, and the musculo-cutaneous nerve of the arm were affected. In the three former limited paralysis followed, which recovered in the course of a year. One of the attacks occurred after incomplete removal of the tonsils. Since the septic stumps were removed three years ago there have been no further attacks.

The Tonsil as Site of Entry for Organisms.

The foregoing evidence points to the tonsil being one, if not the chief, site of entry for the rheumatic organism. Other factors undoubtedly are concerned. There is no characteristic size, shape, or appearance of the tonsils—any variety may be present. All cases, however, give evidence of disease. The tonsils are infected and the tonsillar glands enlarged. The signs may be those of acute tonsillitis, or the process may be a chronic one with an

entire absence of fever or signs of active mischief in the tonsil itself.

With regard to treatment, prevention of tonsil infection is undoubtedly the most important. When the organ, however, is grossly diseased and causing glandular or systemic infection, and where its recovery has been shown impossible, it should be enucleated as a preventive against further infection. This removal should be carried out during some quiescent period both of any local inflammation or general infection.

PNEUMOCOCCUS.

It has been mentioned that the pneumococcus can frequently be found in the tonsils of apparently healthy persons. On occasion an invasion may occur leading to tonsillitis. The inflammation may be limited to the tonsils, or the pharynx may be involved in addition. The inflammation may be associated with the presence of a fibrinous exudate on the surface, while in other cases a deeper infection of the tonsil may result, leading to a tonsillar abscess. In some cases the lesion may be associated with a similar infection in the lungs. One case of note has come under my observation—a child with a large abscess situated in the region of the tonsillar gland. On evacuation of this abscess a pure culture of the pneumococcus was obtained. At the same time the tonsil on the affected side was found to be enlarged and a culture of the pneumococcus obtained from it. On the removal of the tonsil at a later date a small abscess was found in its substance from which a similar culture was obtained.

OTHER PYOGENIC ORGANISMS.

The remaining pyogenic organisms are capable of infecting the tonsil and causing lesions in it or in more distant parts. All the types of tonsillitis are produced, with infection and perhaps suppuration of the cervical lymph nodes. Systemic invasion occasionally occurs with the staphylococci and streptococci and leads to a blood infection of either septicæmic or pyæmic type. In these cases organisms may settle in one or more distant organ, and there is hardly a tissue or organ in the body in which an infective lesion has not been reported following an attack of tonsillitis. In some cases of acute osteitis the source of organisms may be traced to the tonsils, although the great preponderance of staphylococcal infections in these cases points to a dermic origin of the organisms, and this is found clinically to be the case.

Theisen reports a case of acute thyroiditis as following tonsillitis. Loeb reports 4 cases of nephritis from the same source, and although the evidence is not quite conclusive discussion on his cases resulted in 4 more examples being cited. Infections have also been recorded in the testicle, endocardium, lungs, and in the abdominal organs.

Purpura of varying degrees has been not uncommonly noted to follow tonsillitis. I have observed several such cases, one of which presented abdominal symptoms, associated in all probability with hæmorrhagic lesions in the intestine. Somewhat similar effects are produced in the throat by infection with the organisms of Vincent, the bacillus and spirillum. Here the effects may be limited to the tonsil or involve in addition the adjacent pharyngeal structures, lymphatic glands, or distant organs.

SPECIFIC FEVERS.

Time does not permit me more than to mention the relation of the tonsil to the specific fevers. It is well known that the diphtheria bacillus may be a harmless inhabitant of the tonsil, either the true or pseudo type. Its invasion may be limited to the tonsil, and here it produces the characteristic lesion. Once lodged in the recesses of the lacunæ it is often most difficult to get rid of, and may cause repeated attacks of the disease. I removed the tonsils from a patient three years ago, following three attacks of diphtheria within as many years. Diphtheria bacilli were found deep in the lacunæ, and so far no further attack has occurred. These patients carry about an infection not only a danger to themselves but to others, and the most effective way of curing the carrier, when the bacilli are shown to lodge in the tonsils, is to enucleate them. This is followed by a disappearance of organisms from the throat.

The bacillus of influenza has been repeatedly demonstrated in the tonsils both in the apparently healthy and in those suffering from the effects of influenza. It has also been shown that the infection of poliomyelitis may gain access through the tonsils. Tonsillitis may also be associated with the other specific fevers, especially measles and German measles.

The relation to scarlet fever is one of great importance. The attack is so often ushered in by tonsillitis that some causal relation between the two must be considered established. It is still a disputed point how far the streptococci found in the throat lesion and in the infective complications, such as middle-ear disease, cervical bubo, and arthritis or endocarditis, are responsible for the disease.

HYPERTROPHY OF THE TONSILS.

This brief review would be incomplete without some detailed reference to the subject of hypertrophied tonsils. The importance of the subject can be judged from the estimate of the Chief Medical Officer of the Board of Education, who states that of the six million children attending the Government schools 6–8 per cent. suffer from this condition to such a degree as to necessitate surgical treatment. This percentage of children with enlarged tonsils varies in different parts; usually it is higher than the figures above quoted. In London of 240,764 children examined 10 per cent. had hypertrophied tonsils.

It is important to define, if possible, at the outset the normal tonsil, and I would suggest that this is one which causes no symptoms or signs either mechanical or infective. The tonsil naturally enlarges after the age of 2 years and gradually declines in size after puberty. It is found that pathological hypertrophy, although it may occur in infancy, usually corresponds with the period of decay of the milk teeth, and again some time after the development of the secondary ones.

Mouth-breathing and Caries.

The effects of enlarged tonsils may be mechanical, causing difficulty in speech or deglutition. More important, however, are the results of infection, either in the tonsil itself or in the lymphatic glands or body generally. I have previously mentioned some of the more important varieties and results of infection. Apart from those rarer cases of enlargement of the lymphoid tissues generally—such as occurs in lymphatic leukæmia, in which the tonsil participates—the main factor in causing hypertrophy is infection, the infection resulting from the presence of organisms in the mouth and throat.

The enlargement of the pharyngeal tonsil, with the consequent establishment of mouth-breathing, is a factor in the production of tonsillar hypertrophy. One way in which it acts is to transfer to the mouth and throat the duty of filtering the inspired air. The second is in the production of dental caries, which is aggravated by mouth-breathing. This relationship is illustrated in Table VIII., taken from Dr. Wheatley's report. In

TABLE VIII.—*Adenoids causing Mouth-breathing. (Dr. Wheatley's Report, 1911.)*

Children aged 5 years—
Caries in excess of others ... 16·7 per cent.

Children aged 12 years—
Caries in excess of others ... 22·7 per cent.

children of 5 years with adenoids of such degree as to lead to mouth-breathing carious teeth were present in 16·7 per cent. in excess of the others. In children of 12 years of age with a similar condition the excess of carious teeth was 22·7 per cent. A third factor, if the results of Lenart's experiments are confirmed, is that the tonsil may receive organisms by means of its afferent lymphatics from the nose.

The relationship of carious teeth to tonsil hypertrophy is shown by the greatest frequency of hypertrophy in the fifth, sixth, seventh, and fourteenth years of life. At this earlier time the greatest number of carious teeth are usually present, while at the later period the first molars may also become carious. The high percentage of enlarged tonsils in those with carious teeth is well shown in the table from Dr. Jones's report. (Table IX.)

TABLE IX.—*Showing Percentage of Enlarged Tonsils and Number of Carious Teeth. (Dr. Jones's Report, 1911.)*

Carious teeth	0	1-4	over 5
Enlarged tonsils	41·9%	52·8%	67·0%

This relationship can be demonstrated clinically by the beneficial effect on tonsillar hypertrophy by rendering the mouth clean. The reports of the Chief Medical Officer of the Board of Education abound in tables, statistics, and important information relative to these facts.

The specific fevers play an important part in the production of tonsillar enlargement, and one is struck by the frequency by which all trouble is dated from an attack of scarlet fever, diphtheria, or measles.

Condition of Tonsils and Glands.

The degree of hypertrophy of the tonsil varies greatly, some being so large as to meet in the middle line. This type is one which lies almost entirely beyond the faucial pillars and is pedunculated. In other cases, however, the tonsil may reach an extreme grade of enlargement without projecting beyond the anterior pillar of the fauces. The shape of the tonsil also varies greatly. Several distinct types may be recognised, but there are numerous intermediate forms. From being a hollow organ the hypertrophied tonsil tends to become more and more solid owing to the accumulation of lymphoid tissue around the lacunæ, until eventually these become narrow channels, having their orifices obstructed and tending still more to produce the stasis of their contents, and the accumulation of organisms and débris within them. This renders the lacunæ more susceptible of infection by damaging their delicate epithelial lining, and also accounts for the formation of the plugs in the lacunæ or in the main tonsillar fossa. After infection has persisted for some time the tonsil tends to become more fibrous and to diminish in size. In spite of this diminution in size the tonsil still remains septic and may continue to manifest its condition accordingly. It is important to realise that the enlargement of the tonsil may be temporary and capable of completely subsiding. This is well exemplified by the re-examination of school children two or three months after inspection, when the tonsil enlargement may have completely subsided and no evidence of infection can be obtained.

In order to determine the condition of the tonsil as far as possible, in addition to mere inspection of the throat the patient should be made to retch, when the tonsils are forced forwards and towards the middle line and stand out prominently. Under these conditions their exact size and shape can be determined. In order to judge of their septicity, if this is not manifest on simple inspection, the tonsillar fossa or lacunæ should be explored with a bent probe. In all cases the tonsillar glands should be examined by palpation while standing behind the patient, and in a large percentage will be found to be enlarged. Dr. Priestley in his 1910 report gives the following table (No. X.) in which the relation

TABLE X.—*Relation of Enlarged Tonsils to Enlarged Cervical Glands. (Dr. Priestley's Report, 1910.)*

Children.	Number examined.	Enlarged tonsils.	Enlarged cervical glands.
Years—5- 6	8437	19·5 per cent.	23·4 per cent.
,, 6- 9	8573	19·6 ,,	18·7 ,,
,, 12-14	4749	20·5 ,,	10·7 ,,

of enlarged tonsils to enlargement of the cervical glands is shown.

Analysis of a Recent Series of 100 Cases.

Amongst the commonest symptoms repeated sore throats, tonsillitis, peritonsillar suppuration, and enlargement of the tonsillar glands are the most important. Evidence of more general infection may be manifest, such as anæmia or endocarditis. It is important to notice that attacks of acute tonsillitis in these cases may be conspicuous by their absence, the whole process being insidious and gradual. An analysis of a recent series of 100 cases operated on by me gives the following results. (Table XI.)

TABLE XI.—*A Series of 100 Cases.*

Sore throats	70 (70%)	Removal—	
Tonsils—		Complete	190 (95%)
Large	34 (34%)	Incomplete	8 (4%)
Medium	42 (42%)	Shape—	
Small	24 (24%)	Common	123 (61·5%)
Glands—		Embedded	70 (35%)
Large	14 (14%)	Projecting	6 (3%)
Medium	20 (20%)	Glands tuberculous ...	11 (11%)
Small	62 (62%)	Recurrent	4 (4%)
Infection	120 (60%)		

70 per cent. of the patients had suffered from attacks of tonsillitis or sore-throat. The tonsils were considerably enlarged in 34 per cent. of the cases and moderately enlarged in 42 per cent. The remainder were judged to be of normal size or atrophic. In 96 per cent. the tonsillar lymphatic glands were enlarged, being definitely palpable in 82 per cent. In 14 per cent. the glands were sufficiently large to demand surgical treatment, and in 11 per cent. of the cases were considered tuberculous. In 20 per cent. the glands were moderately enlarged, being easily palpable and in most cases visible.

Gross infection—shown by the presence of débris, pus, or foreign bodies—was found in 60 per cent. of the tonsils removed. Four cases had previously been operated on, and needed a second operation for tonsillitis or enlarged glands. For the removal of the 198 tonsils the guillotine was used in every instance. 95 per cent. of these tonsils were completely removed in their capsule, in one piece in the majority of cases; occasionally, however, owing to the size or shape of the tonsil it was necessary to remove it in two or more pieces. The tonsils were definitely pedunculated in only 3 per cent. of the cases; the embedded type was present in 35 per cent.; while the common variety, that with the projecting and almost solid lower pole, with the upper part hidden between the pillars and forming a cavity surrounded by folds of lymphoid tissue, was present in the remaining 61 per cent.

TREATMENT.

The principles to be adopted in the treatment of tonsillar disease may be summed up as follows. So far as the individual is concerned, where the symptoms are mainly or entirely mechanical, and fail to subside in three months after removal of any source of infection, partial removal may suffice. Tonsillotomy, however, has this disadvantage—the basal portion of the tonsil may enlarge and again cause symptoms. In addition to this many hypertrophied tonsils, so far as can be ascertained on inspection, do not appear to be grossly infected. In those cases which are grossly infected the basal portion, often the most diseased, is left behind and may commence to give trouble, especially if some of the lacunæ become partially or entirely sealed up in the process of healing.

When infective symptoms predominate in the tonsil itself, such as acute tonsillitis or chronic lacunæ infection, or when the tonsils are in addition enlarged, any source of infection must be removed, especially carious teeth. Nasal breathing must be re-established, and the case watched to see the effect of the treatment. Where the tonsil is too severely affected to be capable of recovery, as judged by the recurrence of symptoms and the failure of the above measures, then total removal is indicated. Enucleation of the tonsil must necessarily prevent tonsillitis, and while it does not entirely prevent pharyngitis such attacks are usually materially lessened in frequency. When repeated quinsies have occurred further attacks may be prevented by removing the source of the infection, the tonsil.

For lymphatic gland infections, where tuberculosis is suspected tonsillectomy is indicated; the course of the glandular enlargement determines whether this also may require operation. In pyogenic infections of the glands the tonsil must be dealt with when the acute lymphadenitis has subsided or been operated on if suppuration has supervened. Chronic glandular enlargement of the mild or moderate degree is so frequently met with in hypertrophied tonsils that when the tonsil recovers its normal character the glands subside also. It should be a rule that no tonsil should be removed when acutely inflamed. For more distant infections, when the tonsil is suspected of being the focus, removal is indicated when the general condition is satisfactory.

In all these cases total removal is the operation of choice. It presents no greater danger than incomplete removal and can be readily accomplished by the guillotine alone, by a method first described by Mr. Whillis and myself in January, 1910. While these methods directed to the individual are of great importance there is no doubt that prevention of tonsil infection should be our chief aim. This is to be obtained by the advance of hygiene, personal, in the home and school. The maintenance of nasal respiration, the prevention of dental caries, and the proper supply of food in sufficient quality and quantity will greatly diminish the prevalence of this condition. The provision of a cleaner air supply and the prevention of infection by milk are measures needing attention. When that delicate balance between health and infection is upset and the tonsil, a useful organ, becomes diseased and incapable of recovery, a timely removal of this focus may prevent more grave illness and disability. The question of infection of the tonsil and from the tonsil is not to be summed up in some form of operative procedure, but by the attention to the numerous measures I have tried to indicate.

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BRITISH MEDICAL ASSOCIATION.—The annual Representative Meeting will take place at the Connaught-rooms, Great Queen-street, W.C., on July 23rd.

THE TREATMENT OF STAMMERING.—A clinic for the treatment of stammering is being conducted at St. Thomas's Hospital for children who are already under treatment at the hospital for some other disease. The patients are treated twice a week in instructional classes.

A NOTE ON THE TREATMENT OF SEPTIC WOUNDS.

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HAVING undertaken the care of a number of surgical beds in one of the Exeter emergency hospitals, I wish to offer a few remarks on the treatment of septic wounds. The excellent articles which have lately appeared in THE LANCET from Sir Watson Cheyne, Sir Almroth Wright, and others have been most valuable and helpful to the whole profession.

It is obvious from the general trend of modern experience that removal of all foreign substances, free drainage, and especially the mechanical washing away of discharges from every pocket and recess, are of more importance than the use of antiseptic fluids, which can have little or no effect on organisms in the diluted state in which lotions can be safely employed. Warm saline fluid is probably as good a "flushing agent" as can be used. I have seen no great stress laid on the use of long immersions in a warm water bath. For wounds of the limbs this is an invaluable method. I used constantly to employ it for septic wounds about the anus and perineum, especially in bad fistula cases. The results were striking, and doubtless due to mechanical removal of pus and organisms, the fluid percolating and penetrating everywhere.

I was particularly impressed with the wisdom of Sir A. E. Wright's remarks on the treatment of sepsis by physiological methods. This has been too little considered. Everything that improves the health, strength, and appetite promotes healing and diminishes sepsis. It was this long ago which led Paget to give that ancient but excellent drug—the yellow bark—to his patients, and to advise the air of Margate and the East Coast for patients suffering from tuberculous wounds and glands. And this brings me to speak of a consideration which, I fear, has not received the attention its importance deserves. I refer to the marvellous influence of constant exposure to air and sun on those suffering from discharging and septic wounds. Having experienced the benefit of this in my own long and desperate illness, I am able to speak with some confidence. The rapid healing of wounds in animals and savages, with no treatment, has long been known. A gunshot fracture of the limb of a pheasant or hare will unite readily, under a covering of earth, feathers, and fur. I have been informed that the Zulus carried their wounded to the top of a high hill and there left them, recovery being rapid and sound. Nothing is more striking than the rapid recovery from even bad wounds, among country or sea-faring folk, as compared with the pallid occupant of a London slum. In my past practice I frequently sent down to the east coast cases of wounds which were tedious in healing, and the promptness of recovery was generally quite noteworthy. I feel sure that in hot summer weather buildings in a large city are not ideal places to promote the bodily vigour essential to combat the discharges and exhaustion of a septic wound.

It is unfortunate to have to criticise arrangements already made, but, speaking with all respect, I cannot but regard the crowding of wounded into large cities as faulty. I believe at Cambridge a large "open-air" hospital is established with good results. It would be very interesting to hear the views of the surgeons there on the value of such an institution, especially on the health of the nurses and attendants. I believe the air of high altitudes and of the east coast to be the most beneficial.

I fear that many of these remarks are empirical, and I leave to the bacteriologists the explanation of an undoubted and important clinical fact. It is unfortunately only too likely that in the coming months our arrangements will be inadequate. I strongly urge upon the authorities the establishment of matchwood hut hospitals, or tents, on high commons, or on the coast, rather than crowd the wounded into improvised hospitals in towns. It would be less costly. Cases of an offensive nature are easily isolated. The making of latrines would do away with risks of bad drainage. There is no risk of fire, and this is not one to be ignored in case of a Zeppelin raid. The health of nurses and attendants is maintained at a high standard. There would be no need to send away patients to convalescent homes.

I should be glad if this article would promote discussion on an eminently important matter, and the opinion of leading surgeons is earnestly to be desired.

Budleigh Salterton.

HEART PERFUSION WITH EXCRETORY TOXINS.

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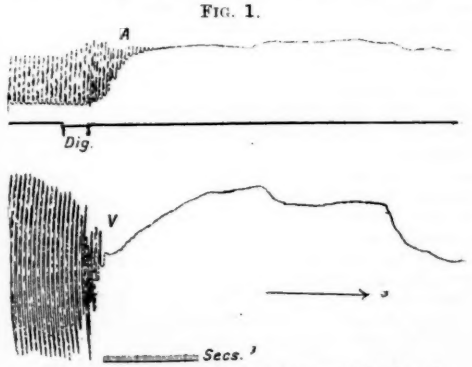
BY way of comparison with the action of excretory toxins on the heart, a record (Fig. 1) is here given of that of digitalin which bears a certain resemblance to them. A 1 per cent. solution of digitalin in Ringer's fluid quickly caused arrest of both auricle (upper tracing) and

FIG. 1.



Records of tracings of (A) auricle and (V) ventricle of toad's heart after treatment with digitalin, 1 per cent., in Ringer's fluid.

ventricle (lower tracing) in this toad's heart. The heart rapidly dies with digitalin of this strength, so that neither perfusion with Ringer's fluid nor other means can restore activity in the muscle. With weaker solutions recovery may be brought about. Digitalin has a uniform toxic action on the whole heart muscle. Schmiedeberg[1] considered the effects of digitalin to be a loss of elasticity in the muscle.

The heart is exposed to the action of certain excretory toxins of the urine and fæces when

[1] Schmiedeberg: Beiträge zur Anatomie und Physiologie, Leipzig, 1874, p. 222.

the mechanism of their expulsion is defective, or, it may be, to these toxins or their precursors normally on their way to elimination. It was thought advisable to test this action by perfusion of the toad's heart.

Method.—The inferior vena cava below the liver was isolated and a small cannula inserted. This procedure as described by Mines[2] is made easier by allowing a drip from the cannula which clears the slit in the vein wall. A cannula communicating with three perfusion bottles has been used in the present instance; one contained freshly prepared Ringer's solution, the second a mixture of human urine and Ringer's solution, and the third fæcal extract made with Ringer's solution. Strengths of 10 and 15 per cent. have been tried. Up to the latter concentration the extracts are practically neutral to litmus; the hydrogen ion concentration was not determined. The aortæ are cut across to provide a free exit to the fluid. A uniform velocity of feed is arranged by adjusting stopcocks on the supply tubes.

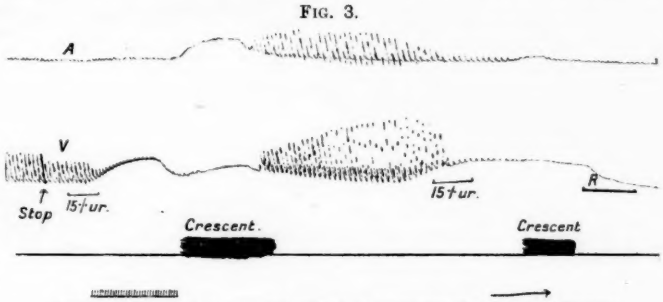
The toxicity of these solutions is greatly diminished by boiling and by allowing them to stand for a few days. If 10 c.c. of urine are evaporated to dryness and extracted with 10 c.c. of water and 90 c.c. of Ringer's fluid the solution has very little toxic effect, which practically disappears if the residue be incinerated before extraction.

The first toxic effect is exhibited by the ventricle. A 10 per cent. urine solution in a few seconds brings about cessation of this chamber in a state of tonus (Fig. 2); the small "beats" seen on the ventricular record are due to auricular pull. The auricular beat is increased in force, which is due, in part at any rate, to increased tension; there was no previous perfusion. Recovery with Ringer's solution is rapid, though the ventricle is somewhat irregular for a time. The break in the recovering ventricle tracing, as shown by the arrow, is due to clipping the supply tube for an instant, thus shutting off the perfusing fluid. The ventricle in its tonic condition took a little time to recover after the passing over of auricular impulses into it. These impulses, powerful though they were, evidently were blocked in their passage to the ventricle until Ringer's solution restored the conductivity of the a.-v. bundle.

Fæcal extract shows a similar result (perfusion period shown by the line marked F.E.). The output from the ventricle being merely passive, the intra-auricular tension is greatly increased, till by making a slit in its wall the tension is relieved; the lever falls to the previous diastolic level and the ventricle beat is at once resumed with the now quietly acting auricle. It is pretty evident here that the depression (block) was mainly confined to the a.-v. bundle, the ventricle proper, although in a state of tonus, being ready to take up the beat vigorously the moment it was passed on by the extra stimulus provided by the snip.

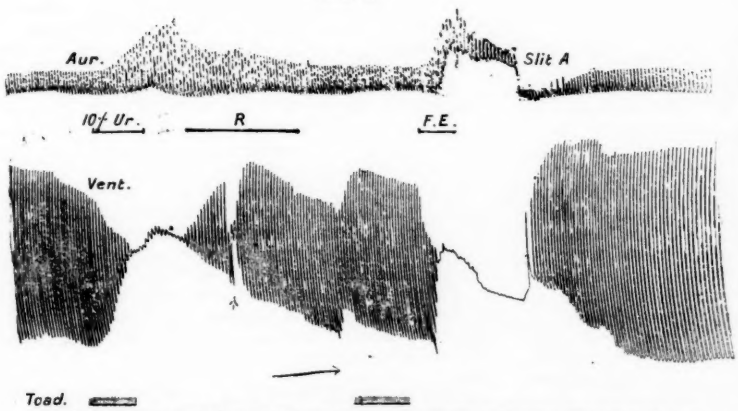
A second application of the fæcal extract in this case had a slight effect on the auricle, while the ventricle beat was diminished, but diastole was not interfered with (no tonus). Apart from the fact that the conditions were considerably altered in this by the leak on the auricle — the perfusion pressure was not altered to meet it—there seems to be a certain degree of tolerance of, or immunity from, the toxins on their repeated use. This is exhibited by a slower onset of the effects and a diminution of the tonicity. If we turn on the urine solution we notice an improvement in the auricular beat, an improvement which cannot be ascribed simply to tension changes, bearing in mind the leak and the fact that the fæcal extract solution at the same velocity previously caused no augmentation of beat; the ventricle gradually grows weaker. It will be, of course, evident that the ventricle is not brought under the influence of the fluid to the same extent as before the auricle was slit. A certain amount of antagonism seems to exist between these poisons, but the question has not been properly investigated.

FIG. 3.



Lines marked UR and R represent periods of percussion with urine and Ringer's fluid respectively.

FIG. 2.



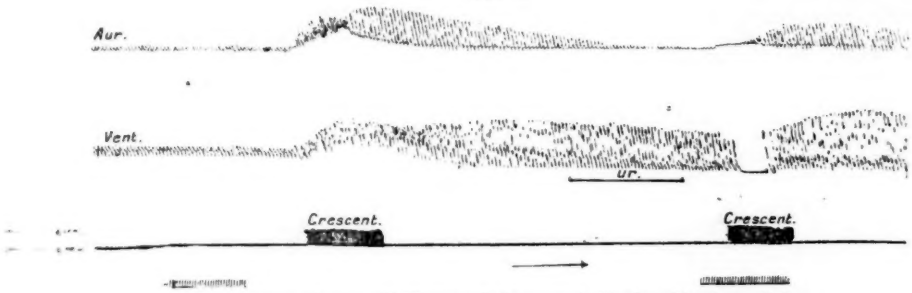
Horizontal lines marked UR, R, and F.E. represent perfusion with urine, Ringer's fluid, and fæcal extract respectively; time in seconds.

[2] Mines: Journal of Physiology, xlvi., p. 188, 1913.

The a.-v. bundle seems to be the part most affected by the excretory toxins which depress its conductivity, at the same time that they affect somewhat the ventricular muscle as a whole; a marked difference in the mechanisms of the two chambers is also demonstrated by their action. Irritability of ventricular muscle is completely lost only with strong solutions, and is quickly recovered if the action be not too long continued. The nervous mechanism, except the accelerator fibres, seems to be unaffected by the weaker solutions. In the tracing (Fig. 3) the drum was stopped for a little while to try to get a more effective pull on the auricle lever, but without success; the attachment of the silk was not interfered with. A strong solution of urine, about 15 per cent., causes marked tonus of the ventricle with a greatly diminished fundamental beat. Stimulation of the crescent (first signal mark) during this tonus causes arrest of both chambers, the auricle entering into a state of well-marked tonus. It will be noticed that there is no initial contraction of the ventricle (muscle irritability lost). At the end of the stimulation period both chambers beat regularly and forcibly. Perfusion with the same solution a second time is followed by a similar result, but crescent stimulation (second signal) is not followed by heart contractions. Perfusion with Ringer's solution (shown by line marked R) for about half a minute brings about recovery of the muscle irritability, as contractions, not shown in figure, occur at the beginning of the next stimulation period. Sympathetic stimulation, not shown in the record, at this period when the muscle shows recovery with Ringer's fluid, is capable of setting up rhythmic contractions at once; if it fails it is because the accelerators, more susceptible than the inhibitors, have also been recently stimulated and have not quite recovered. This third stimulation is followed after a short interval by strong rhythmic contractions in both chambers. A third dose of the poison causes arrest of the ventricle almost in diastole. The tonic effect, as already mentioned, disappearing. The muscle again recovers, as shown by contractions at the beginning of the fourth crescent stimulus, which is followed after an interval by strong regular beats.

The auricle throughout is not affected in the same way as the ventricle; during the third and fourth stimulation periods it is scarcely affected, and it continues to beat while the ventricle is quiescent. The interpretation of the results seems to be that urine in the strengths given has a toxic action on ventricular muscle, while a deleterious effect on the auricle is not apparent. Its depressing action on the a.-v. bundle is distinctly marked, a depression which seems to be in part muscular and in part nervous. The third and fourth stimuli cause a short arrest of the auricle and maintain the arrest of the ventricle. It would seem that inhibitor nerves are not paralysed, and it may be that the stimuli by acting on these help to prevent ventricle recovery; but the muscle and accelerator depression have not sufficiently recovered to respond to stimulation. There is a difference of susceptibility not only in the muscle of the two chambers but also in their nerves, the accelerators to the ventricle suffering more than the auricular ones; any marked interference with these latter soon causes a cessation of the beat.

FIG. 4.



First crescent, stimulus with Ringer perfusion; second, stimulus with urine perfusion.

To show the action of urine on the accelerator nerves a weak current is applied to the crescent of a fresh heart perfused with Ringer's solution. (Fig. 4.) It is followed by well-marked acceleration and augmentation. It is now perfused with a weak solution of urine that is not enough to cause marked deterioration of the beat, and so might obscure results, and the same stimulus applied. It causes a pure inhibition, affecting mainly the ventricle. There is little doubt but that the accelerators have been depressed by a solution which is too weak to cause any marked change in the muscle. The toxic effect of a weak muscle poison is to a great extent counterbalanced by the beneficial mechanical effect of perfusion: the weak urine solution here employed if dropped on a non-perfused heart causes after a little time a distinct weakening of the beat, although it affects mainly superficial muscle and not the susceptible a.-v. bundle. Again, the depression of the accelerators is not sufficient to interfere with the rhythm, the effect of the previous stimulation being probably to a certain extent antagonistic in this respect; but it is enough to bring out as the result of a weak stimulus the other factor (inhibitor) in the nervous balance, at any rate in so far as it affects the ventricle.

Cork.

THE ECONOMY OF THE ARMAGH GUARDIANS.—By 21 votes to 6, the Armagh guardians, on May 11th, refused to pay a substitute for Dr. R. T. Herron, medical officer of Armagh union infirmary and fever hospital, while the former was engaged at the front in His Majesty's forces, giving as a reason that they were bound to consider the ratepayers' money as if it were their own. Dr. Herron was a civil surgeon with His Majesty's forces at the time of the South African war in 1901–02, and was awarded a medal with four clasps.

THE INFLUENCE OF INJECTIONS OF CONTRA-TOXIN NO. 4 (MEHNARTO) ON THE CONTENT OF OPSONINS IN THE BLOOD SERUM OF TUBERCULOUS PATIENTS.

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AND
DR. LOUIS RAJCHMAN.

WE examined the influence of injections of contra-toxin No. 4 on the content of opsonins in the blood serum of patients under treatment. The technique employed was the classical one. Seventy-nine tests were made in all. Bacteria were counted in 100 leucocytes, two films were made from each test, and the indices determined after two examinations. Table I. gives the results obtained with patients under treatment.

TABLE I.—(*Fifteen Patients under Treatment*).

Patients.	Before injection.	After injection one week.	Two weeks.	Three weeks.
1	0·32	—	1·38	0·9
2	0·46	—	—	0·78
3	0·23	0·6	1·08	1·4
4	0·19	0·22	—	—
5	0·16	0·66	2·2	—
6	0·71	0·82	0·75	1·1
7	1·07	2·04	1·17	—
8	0·91	0·5	1·2	—
9	0·31	0·92	1·3	—
10	0·89	1·81	—	—
11	1·56	1·7	—	—
12	1·8	1·2	1·6	—
13	0·9	1·2	0·9	—
14	1·65	1·5	—	—
15	1·23	1·4	—	—

It was thought necessary to determine the behaviour of the opsonic index in normal persons injected with contra-toxin No. 4 so as to ascertain the influence of contra-toxin on normal blood serum. Table II. gives the results obtained with three "normals"; they were persons free from tuberculosis but suffering from gonorrhœa. It

TABLE II.—"*Normal*" *Controls*, 1.

Patients.		Before injection.	One week after injection.	Two weeks after injection.
"N"	B. coli	1·06	0·73	0·82
	Staphylococcus	0·85	1·12	0·96
"P"	B. coli	1·6	2·04	1·9
	Staphylococcus	0·96	1·36	0·85
"G"	B. coli	0·82	0·75	0·90
	Staphylococcus	1·2	1·1	1·4

will be observed from the table that no distinct increase in the opsonic index against B. coli and staphylococcus could be recorded.

It was further thought necessary to carry out another control experiment in order to ascertain the opsonic index against tubercle bacilli in "normal" persons. Two persons suffering from neurasthenia and free from tuberculosis were selected. (Table III.) There was a slight increase in the opsonic index in the case "Edward"; but this increase was insignificant as compared to that recorded with tuberculous patients under treatment.

The above figures show that the opsonic content distinctly increased after injections of contra-toxin No. 4 in almost every case, and that in six of them the increase was very marked. It is difficult to say at the present moment whether the increase of the opsonic index against tubercle bacilli is a permanent one. Cases 1, 7, and 13 seem to indicate that after an initial increase there may be diminution, which, however, remains above the level of the opsonin content before treatment. It is, however, an open question for how long this increase continues, as no patient was examined for a longer period than four consecutive weeks.

TABLE III.—"*Normal*" *Controls*, 2.

Patients.		Before injection.	One week after first injection.	One week after second injection.
"Edward"	T.B.	0·83	0·92	1·02
	B. coli	1·1	0·92	0·95
	Staphylococcus	1·2	1·3	1·4
"William"	T.B.	0·76	0·84	—
	B. coli	0·98	0·96	—
	Staphylococcus	1·08	0·85	—

Further Opsonin Tests by Dr. W. E. COOKE and Dr. W. JOHNSTONE.

Further opsonin tests were carried out at the Ochil Hill Sanatorium, Milnathort, by W. E. Cooke, M.D. Liverp., M.R.C.P. Edin., D.P.H. Lond., late Medical Superintendent, Ochil Hill Sanatorium, and W. Johnstone, M.B., D.P.H. Camb., late Resident Physician. They report as follows:—

"In order to ascertain the permanency of the increase of opsonins against the tubercle bacillus in the blood serum of patients treated with contra-toxin No. 4 we extended our tests over a period of four months. In all we treated 25 patients, and the opsonin content in the blood serum of these patients was examined by us. The accompanying table (IV.) gives our results:—

TABLE IV.—*Results of Opsonin Tests at Ochil Hill Sanatorium* (*Dr. Cooke and Dr. Johnstone*).

Case No.	Date of first injection.	1913 19.11	1913 12.12	1913 18.12	1913 26.12	1914 2.1	1914 20.1	1914 27.1	1914 25.2	1914 3.3	1914 23.3
1	23.11.13	0·67	1·6	—	—	—	—	—	—	1·7	—
2	23.11.13	0·52	1·1	—	—	—	—	—	—	1·7	—
3	23.11.13	0·78	1·3	—	—	—	—	—	1·7	—	1·8
4	23.11.13	0·57	1·1	—	—	—	—	—	—	1·1	—
5	23.11.13	0·54	1·48	—	—	—	—	—	—	1·9	—
6	23.11.13	0·54	1·0	—	—	—	—	—	—	1·8	—
7	23.11.13	0·58	1·8	—	—	—	—	—	—	1·8	—
8	23.11.13	0·6	1·3	—	—	—	—	—	1·33	—	—
9	23.11.13	0·45	1·1	—	—	—	—	—	—	—	1·3
10	23.11.13	0·59	1·6	—	—	—	—	—	1·3	—	—
11	17.12.13	—	0·63	—	—	—	—	1·90	1·79	—	—
12	17.1.14	—	—	0·95	—	—	—	—	1·4	—	—
13	17.12.13	—	0·76	—	—	—	—	2·1	1·4	—	2·1
14	17.12.13	—	0·5	—	—	—	—	2·2	1·7	—	—
15	2.1.14	—	0·58	—	—	—	—	1·8	—	—	—
16	7.1.14	—	—	—	0·6	—	—	—	—	1·54	—
17	30.12.13	—	0·7	—	—	—	—	—	1·74	—	—
18	18.2.14	—	—	—	0·48	—	—	—	—	—	1·8
19	27.1.14	—	—	—	—	—	—	0·6	1·0	—	—
20	7.1.14	—	—	—	—	0·46	—	—	0·8	1·3	—
21	28.1.14	—	—	0·7	—	—	—	—	—	1·04	—
22	31.1.14	—	—	—	—	0·6	—	—	1·3	1·0	—
23	31.1.14	—	—	0·54	—	—	—	—	—	—	—
24	2.2.14	—	—	—	—	—	—	0·7	—	1·0	—
25	27.1.14	—	—	—	—	—	0·6	—	—	—	1·5

"The above figures lead us to conclude that injections of contra-toxin No. 4 caused a marked increase of opsonins in the blood serum of every tuberculous patient. It will be observed that there is a slight diminution after the initial increase, but one is forced to admit that even after the diminution the opsonin index remains stationary and permanent above the level of the opsonin content before treatment."

PROGRESS IN THE TREATMENT OF CATARACT IN INDIA.

BY HENRY SMITH, M.D., M.CH. R.U.I., V.H.S.,
LIEUTENANT-COLONEL, I.M.S.; CIVIL SURGEON, AMRITSAR.

THE accompanying table, extracted from the official records, shows the progress in the treatment of cataract in India, except in the minor provinces and native States, statistics of which I have been unable to obtain. It shows the work done in the past by the Indian Medical Service and the work we are now doing. It was in the late "seventies" that cataract extraction in India came into existence. Before that time the treatment of cataract was in the hands of the immemorial indigenous "lens coucher." All the progress we have made has been at his expense. The Punjab is his home. All over the Punjab we come across villages named Rawal Pindi—that is, Rawal's town, Rawal signifying the caste of lens coucher. From the Punjab at the end of the hot weather he migrates all over India; a number of them go to Europe and return at the beginning of the following hot weather.

Statistics of the Cataracts Operated on in the Leading Provinces of the Indian Empire.

Year.	Punjab and North-West Frontier Province.	United Provinces of Oudh and Agra.	Bengal, including Calcutta.	Madras Presidency and City.	Bombay Presidency and City.	Central Provinces
1881	265	2640	357	—	—	—
1882	507	3521	350	480	—	—
1883	435	4641	391	256	193	27
1884	596	6048	500	222	230	16
1885	948	6048	763	443	197	57
1886	1501	5506	551	407	219	112
1887	2459	5625	635	511	322	110
1888	2658	5966	893	730	266	114
1889	3957	6739	1225	749	265	109
1890	4013	7615	2017	1227	316	219
1891	4482	9155	1688	1103	290	174
1892	4294	8830	1597	1307	355	253
1893	5309	9124	1481	1271	362	479
1894	5305	9222	1407	1233	407	949
1895	6216	10565	1913	1234	487	1299
1896	5323	8923	2845	1425	490	1508
1897	4667	6514	3134	1562	382	964
1898	4534	5613	2560	1222	523	1020
1899	5319	5734	3051	1301	578	945
1900	5614	5971	2862	1472	697	733
1901	6590	5787	3159	1621	709	903
1902	5909	5635	3885	1496	879	789
1903	6107	5157	3537	1418	942	568
1904	7465	5023	3514	1346	1012	681
1905	7929	4994	3053	1149	917	777
1906	8317	6421	3653	1232	1010	828
1907	8122	5568	3866	1404	962	871
1908	8099	5474	4322	1034	985	973
1909	11156	5442	4145	1442	1238	1042
1910	11397	6168	4266	1187	1419	763
1911	12290	6825	4953	1344	1424	888
1912	15576	8846	2464	1526	1467	922
1913	16236	9905	1291	1655	1586	—
Pop.*	22,171,889	47,182,044	79,973,084	41,405,404	19,672,642	13,916,308

* Population at Census, 1911.
Total for the above provinces, 31,598.

The statistical table does not indicate the amount of cataract in India. It indicates the amount which has come under modern treatment. When the figures concerning the Punjab are examined it will be seen that, as in the other provinces, results were becoming stationary up to, roughly, the year 1898. Shortly after that date I began to teach extensively and to advocate intracapsular extraction, so that it has now become practically the operation of election in the Punjab. The progress made in the Punjab since 1900, when compared with that of the other provinces, speaks more in favour of intracapsular extraction than volumes of academic disquisition.

		Cataract operations.
The Punjab and N.W. Frontier Province	in 1881 had	265
	,, 1913 ,,	16,236
The United Provinces and Oudh ...	,, 1881 ,,	2,640
	,, 1913 ,,	9,905
Bengal Provinces with Calcutta ...	,, 1881 ,,	357
	,, 1913 ,,	1,291
Madras Presidency and city	,, 1882 ,,	480
	,, 1913 ,,	1,655
Bombay Presidency and city	,, 1883 ,,	193
	,, 1913 ,,	1,586
The Central Provinces	,, 1883 ,,	27
	,, 1912 ,,	922

The phenomenal progress since 1900 in the Punjab compared with the other provinces of India is undoubtedly due to the superior results obtained by intracapsular extraction. Nothing can controvert these facts. As far as matters surgical are concerned, those who are familiar with the Punjab know that we are dealing with a highly utilitarian people, a people who go entirely by results. Intracapsular extraction is beginning to extend rapidly to other provinces, and when it is extensively adopted I expect to see progress in these provinces similar to what we have in the Punjab. It is being noticed by all who adopt the operation in other provinces that the cases in their hospital rapidly increase in number at the expense of hospitals who adhere to Daviel's operation, thus showing clearly the patient's opinion regarding the comparative excellence of the two operations. I personally believe that it will not be many years before intracapsular extraction is the operation of election throughout the Indian Empire, and that those who stand out against it will disappear from want of material. The table above shows that we do over 31,000 cataracts a year in the Indian Empire, more than half of these operations being performed in the Punjab, with its 20 millions of people, the population of the Indian Empire being 315 millions. Twenty years hence there will be, I think, more than 60,000 cataracts a year coming under modern treatment in the Indian Empire. The fact that less cataract comes under modern treatment in other provinces than in the Punjab does not indicate that there is necessarily less cataract in those provinces. It does indicate that we have not secured the confidence of the patients in the same degree as we have in the Punjab.

I think, without encroaching on other men's work, I may claim to have established intracapsular extraction of cataract in the Punjab and in many other places in India. I do not claim to have been the first man to extract cataract in the capsule. Intracapsular extraction has been the dream of ophthalmologists since the days of Daviel. It has been tried by a number of men we know, and probably by many others whose names we do not know. Their methods were so imperfect that the risks associated with the procedure made it prohibitive, so that at the present hour they would all have ceased to exist.

I do claim that every detail associated with my name has been worked out by myself independent

of even a suggestion from any other man; as, for instance, the method of completely exposing the conjunctival sac for disinfection and for exposing the field for the operation; the method and the importance of controlling the orbicularis muscle; the different methods of dealing with the different types of lens; the fact that an eye should not be subjected to meddlesome dressing any more than any other surgical wound, &c. Any one of the technical details which I have pointed out may in itself look trifling. It is only the experienced operator who comes to recognise their importance, and combined these details constitute a method which, as many of my pupils have shown, is not subject to greater loss of vitreous humour than the operation of Daviel in the same hands.

I have also shown that a cataract may be extracted at any stage of its immaturity as safely as when mature. I have thus established it as an operation which is destined to live and, in my opinion, to take the place eventually of Daviel's operation as distinguished from previous evanescent methods of intracapsular extraction.

I also claim that I have been the first man to teach the mechanical side of surgery as the mechanical side of any other part is taught. The practice universal in Europe and America is to teach the mechanical side of the surgical art by means of lectures and demonstrations. What other mechanical art is taught in this way? The procedure I adopt in teaching is to show the pupil in a considerable number of cases the method of operation, pointing out the importance of every detail. The pupil is then set to perform the operation before me on the living subject in a large number of cases. He is instructed as he proceeds, the mistakes he is making are pointed out and the reasons given, and I come to his relief in case of difficulties. A short course of training of this kind makes a man a more efficient operator than a lifetime of lectures or of looking at demonstrations. One advantage in this method of teaching is that it establishes the confidence of the operator in himself, which no other method does, or else forces him to decide that he had better confine himself to the physician's art. I have had as pupils a large number of the Indian Medical Service, of the Royal Army Medical Corps, and of the different missionary societies, together with Hindus, Mohammedans, Parsis, official and non-official, without respect to colour, caste, or creed. I have had surgeons from Great Britain, Australia, Canada, and especially from the United States. To teach men this way is a very strenuous and tiring task, as will be understood when the welfare of the patient is my responsibility and must be the first consideration.

This teaching I have been doing single-handed and alone, unrecognised by Government, in an institution grossly under-staffed and financially starved. It will be understood how much strain is involved when it is stated that the work I have personally done includes more than 35,000 cataract operations, with a corresponding proportion of other ophthalmic operations. It also includes as much general surgery as that done by any other man living. In addition to all this I have had my official work, the management of a jail during most of the time, the administration of the sanitation, medical charities, and medico-legal work of a district close on a million people. It is needless to say that I could not cover in teaching the whole field of ophthalmology in addition to my other work. It would take a "superman" to do that.

Considering that post-graduate schools in the different branches of medicine are springing up over the Indian Empire, and the amount of material represented by the foregoing statistics, it is surely time that we had a post-graduate school to teach the subject to those pursuing a career in ophthalmology in the Indian Empire. We should not leave post-graduates to the meagre material of our alien enemies, since it is to Vienna and Berlin men go for post-graduate instruction rather than to Great Britain. I would point out that the number of cataract operations in London in the year does not exceed 400–600, and in Vienna there are a few more.

It may be said that this is not the time to raise an issue of this kind, when the Empire is in labour. I contend that this is just the time when "the spirit is on the waters." The spirit is abroad throughout the Empire that we should develop our own industries and not be dependent on other countries, a sentiment with which I wholeheartedly agree. Why should not India take its position in the scientific field of ophthalmology, since it has incomparably more material than any other country in the world? It is a subject which surely appeals to every man in India. All we require to establish a school of ophthalmology in India is money. I hope our pâtriotic fellow citizens will respond to the crying need of the land of their birth. A school of this kind must be properly manned and financed. Its incumbents should not be paid on the principle that they are to eke out a meagre existence by means of private practice, competing with men who will do a cataract operation for 2 rupees. If it is to be a success, their pay and prospects should be so ample as to attract the best men available, as the prospect of private practice for such men may safely be calculated as approaching *nil* from this time onwards.

The Government is advancing rapidly as regards the improvement and development of their medical schools for undergraduates. Government is also instituting research schools and schools of tropical medicine all over India for post-graduates, but nothing has been done to promote instruction and research in surgery post-graduate. The gulf which stands between European and Indian is being very slowly bridged. Among the builders of this bridge the surgeon stands out pre-eminently. It is he who has paved the way for modern sanitation and modern medicine, though both are yet in their infancy. From the sweeper to the gaddi the surgeon comes most closely in touch with the real life of the people and their aspirations. He is their friend and confessor, so to speak; a man of no political authority and in no way connected with the "taxation of the poor" or the "punishment of the innocent." Surgery makes an infinitely greater appeal to the people of this country than medicine. The indigenous medicine man still flourishes under the shelter of superstition and fate, neither of which can shelter the surgeon's art; hence the fact that surgery is the pioneer and paves the way for medicine. So, I think, of post-graduate schools, one for surgery and surgical research should lead the way.

It is a mistake to think that because there are a large number of Indians becoming qualified in medicine, therefore medicine may safely be left to take care of itself in India. India never required higher-class men than it does at present and will do for many years to come, to lead the newly fledged profession in the way which

experience in Europe and America has indicated, with all its humanitarian, scientific, and æsthetic aspirations. The whole tendency of the Indian profession, becoming so rapidly produced, is competition for fees, thus reducing fees to such a low scale that it is impossible for such a profession to devote any attention to the development of the scientific side of its art, the whole tendency being to reduce the profession to a mere trade, in which he who advertises loudest reaps the biggest financial advantage. We are told that Indians do not possess the scientific spirit. I think there is much truth in this statement at the present time. The study of science is but in its infancy in India, and we cannot therefore expect to see its people realising the seductive satisfaction to be gained by scientific research and its application to the alleviation of human suffering. Yet a people who for ages past have produced so many ascetics prepared to work through life for spiritual idealism, despising material welfare, have surely unlimited possibilities for the future of producing men who will give their lives to the interests of science, which are the interests of humanity.

The objects of this school which I advocate are: the study and teaching of the causes and prophylaxis of the many diseases to which the eye is incident in India; the teaching, both theoretically and practically, of the methods of treatment of diseases of the eye; and the utilisation of our material to such a degree that men and women from all the world will come for instruction to India.

TWO EXTRAORDINARY CASES OF LIVER ABSCESS.

BY CLAUDE BURGOYNE PASLEY, F.R.C.S.IREL.,
MEDICAL OFFICER, TAIPING, FEDERATED MALAY STATES.

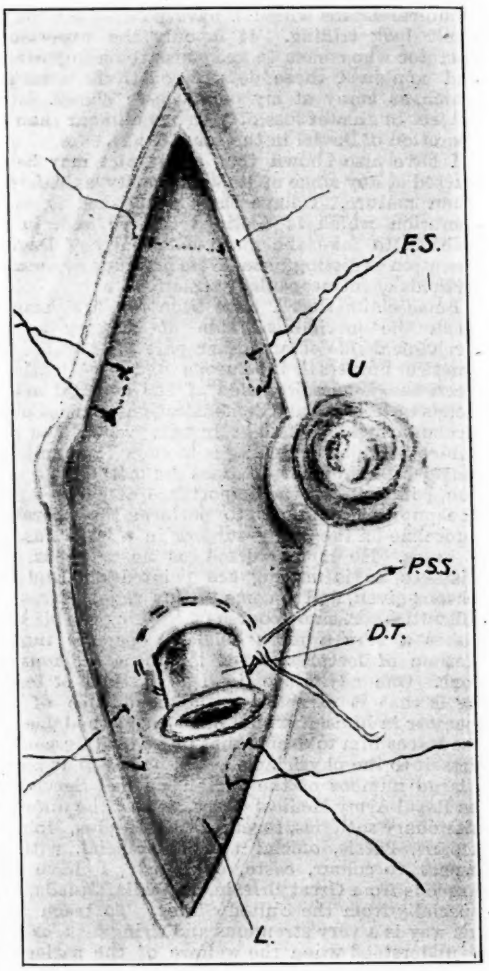
LIVER abscess in the Federated Malay States is fairly common, but the two following cases are, I think, worthy of record from the fact of their remarkable size, larger than I can find recorded in any publication that I have been able to consult, and also for the reason that although the patients were extremely emaciated and constitutionally extremely ill they both recovered perfectly, thus showing that no liver abscess, however large and however ill their possessors may be, can be considered as hopeless.

CASE 1.—The patient, a Chinese mining coolie, aged 40 years, was admitted to hospital on Nov. 9th, 1914. He complained of a large slightly painful swelling in the abdomen, which he first noticed one and a half months previously. There was a history of dysentery three months prior to admission and lasting for about 14 days.

On examination the abdomen was found enormously distended, resembling closely the abdomen at full-term pregnancy. An enormous tumour was palpable, which gave the sensation of fluid under extreme pressure. It was slightly tender to touch. Absolute dulness extended from the pubic region up to and continuous with the hepatic area proper. The tumour extended equally into both umbilical regions laterally—in fact it practically filled the abdominal cavity. The patient's general condition was extremely bad; he was wretchedly thin, weak, and listless. There was absolutely no sign of jaundice, and no bile in the urine. Blood examination showed slight leucocytosis. Examination of stools gave a negative result. A provisional diagnosis of liver abscess was made and operation decided upon.

On Nov. 23rd I opened the abdomen in the middle line, the incision extending from a point 3 inches above to 3 inches below the umbilicus, thus thoroughly exposing the anterior aspect of the tumour. On passing my hand into the abdomen I was able to trace the tumour right down to the pubic symphysis upon which its lower sharp edge rested, and also upon the iliac fossæ on either side, extending laterally as far as the ascending and descending colic regions. Upwards it became continuous with the liver. No adhesions were encountered. The abdominal cavity having been most thoroughly packed off with sterile towels, I passed an exploratory needle into the tumour and evacuated a small quantity of thick yellow pus. A purse-string suture was then inserted around the area where I proposed freely to open the abscess and place a large drain. I next passed several fine silk sutures between the parietal peritoneum and that forming the liver capsule in such a way as to surround the area opened, and thus shut it off from the general abdominal cavity; these sutures were not tightened and tied until the abscess had been evacuated. I next plunged "Manson's" liver abscess trocar and cannula into the abscess at the site of the primary puncture. Pus under enormous pressure gushed out, and the abscess quickly emptied itself. I passed my finger into the abscess cavity subsequent to withdrawal of the cannula, but utterly failed to reach its limits. A large rubber drainage-tube was inserted and the purse-string suture tightened so as to prevent any leakage. The toilet of the surface of the liver having been attended to and the packings being removed, the fixation sutures were tightened and tied, thereby approximating the liver surface to the parietes. (Fig. 1.) A point of suture was passed

FIG. 1.



Illustrating method of operation, the parts being nearly life size. F.S., Fixation sutures. U., Umbilicus. P.S.S., Purse-string sutures. D.T., Drainage-tube. L., Liver.

between the abdominal wall and the drainage-tube, and the abdominal wound completely closed save where the tube extruded. I now placed a short glass tube to act as a window between the drainage-tube and a length of rubber tubing, which was allowed to terminate in a chamber containing carbolic lotion, thus encouraging drainage by syphonage.

The patient stood the operation well, and his subsequent history was quite uneventful; the drainage-tube was finally removed on the fourteenth day after operation. For a further fortnight the abscess continued to drain through the sinus formed and gradually ceased, when the sinus itself slowly healed from the bottom. The patient rapidly improved, putting on weight, his appetite becoming very keen. His bowels acted regularly, and the motions were in every way normal. No amœbæ were found in swabbings taken from the abscess cavity. The only medicine given during his illness was emetine administered daily by hypodermic injection. He received 1½ grains per day.

CASE 2.—The patient, a Chinese male aged 33 years, was admitted to hospital on Nov. 22nd, 1914. He complained of gradual increase in the size of the abdomen, and stated that he first noticed the increase during the earlier part of October. He had little or no pain; he complained, however, of progressive loss of strength and weight. He stated that he had an attack of dysentery about three months prior to the onset of his present trouble.

On examination an enormous tumour was found practically filling the entire abdomen. It gave a sensation on palpation of a sac containing fluid under very high pressure. As far as could be made out by external palpation the lower margin of the tumour was situated 1½ inches above the symphysis pubis. It extended laterally into each flank and seemed to originate from the liver. Examination of the blood showed a slight leucocytosis. Examination of the fæces showed the presence of ankylostoma and lascaris ova. His general condition was wretched in the extreme. (Fig. 2.) I operated upon him on Dec. 11th, the procedure in every respect being the same as that carried out in Case 1.

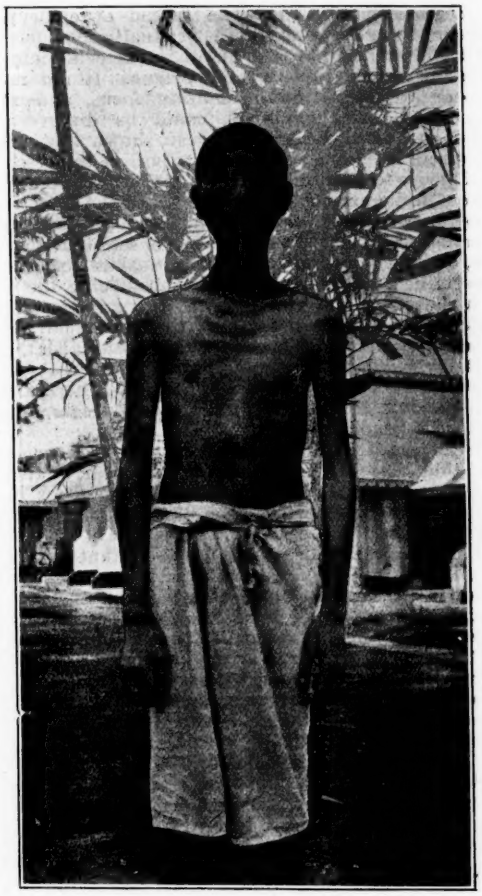
His recovery has been quite uneventful, and at the present date he is completely cured (Jan. 21st, 1915). His general condition has marvellously improved. (Fig. 3.)

He received ¼ grain emetine hydrochlor. daily for three weeks by hypodermic injection.

FIG. 2.

CASE 2. Before operation.

FIG. 3.



Same patient after operation.

I think it remarkable to have had under my care two such extraordinary cases within a few days of each other. The similarity of the history in each case is worthy of note. The rapidity of recovery and almost immediate improvement shown after operation, the total absence of subsequent complications, demonstrate, I think, that liver abscesses even of very great dimensions offer every hope of recovery.

The total absence of jaundice in both cases indicates that the functions of the liver, so far as the production and secretion of bile were concerned, were at no time interfered with, though the area of active and healthy liver must have been extremely small.

Taiping, Perak, Federated Malay States.

CEREBRO-SPINAL FEVER AND THE SPHENOIDAL SINUS.

BY DENNIS EMBLETON, M.A., M.B. CANTAB.,
MAJOR, R.A.M.C. (T.); BACTERIOLOGIST TO NETLEY HOSPITAL;
AND
E. A. PETERS, M.D. CANTAB., F.R.C.S. ENG.,
CAPTAIN, R.A.M.C. (TEMP.); NOSE, THROAT, AND EAR SPECIALIST TO NETLEY HOSPITAL.

(*Preliminary Article.*)

WE bring forward the following cases to show that empyema of the sphenoidal sinus has a relation, and probably a causal relation, to the infection of cerebro-spinal fever. The spread of epidemic cerebro-spinal meningitis was originally considered to be different from that of other bacterial infections, such as cholera and plague. It did not appear to start from a definite focus, and no traceable series of links could be discovered between cases. It has now been shown that the bacterial infection spreads from person to person, giving rise to a rhinitis, similar to that produced by other "influenza cold" organisms. Of the infected people a very small percentage subsequently develop meningitis. What determines the onset of meningitis, or the resolution of the rhinitis, has not been ascertained. It has been regarded as being due to a variation in the virulence of the organism or difference in the resistance of the individual. It seems important in this connexion to establish the path by which the meningococcus gains access to the meninges from the naso-pharynx. There are two possible routes: (1) By the blood stream, and (2) by the lymphatics.

With regard to the blood stream route, it seems probable that the meningococcus very early gains access to the blood, as do all micro-organisms in bacterial infections. That the organism has been demonstrated in the blood and urine of people suffering from the disease is not important in this connexion, since the organism could as readily have obtained access to the blood from the cerebro-spinal fluid as from the nasal mucosa. What is of importance is that the organism has been demonstrated in the urine of people carrying the micro-organism in the naso-pharynx, and yet having no symptoms of meningitis. The organism, to appear in the urine, must have circulated in the blood stream. So it is possible that the organisms may gain access to the meninges *vid* the blood stream.

With respect to the route by the lymphatics direct from the naso-pharynx, we would bring forward the following points which we believe support this path of infection.

Post-mortem Examinations of Three Fatal Cases of Cerebro-spinal Meningitis.

CASE 1.—Naso-pharyngeal mucous membrane very swollen and rugous. Sphenoidal mucous membrane injected; cavity full of glairy pus; ostia impervious to a probe. Osteitis of bone surrounding sinus; numerous pus cells present. No organism seen or cultivated from the bone. Deep congestion of the inner table of the skull; in the region of the sinus the dura mater injected; thick purulent lymph lying on the surface of the dura mater.

CASE 2.—The same findings, but the meningococcus was readily demonstrated in both the pus cells in the sphenoidal sinus and the bone.

CASE 3.—The same findings, but in addition the organism was demonstrated in the cancellous bone, in which the inflammation was much more extensive and reached to the apex of the petrous bone.

In none of these cases was there any inflammation occurring in the cribriform plate, the ethmoidal, frontal sinus, or the middle ears. The findings suggest that the meningococcus infection spreads from the naso-pharyngeal mucous membrane into the sphenoidal sinus. The opening of the sinus is then obstructed by the swelling of the mucous membrane, which is very liable to excessive swelling in children and adolescents in the course of inflammation. The occlusion would be favoured by any abnormal contraction of the ostia or pathological change. Subsequently to empyema of the sinus infection of the dura mater may supervene. So it might be suggested that among the contacts who have a mucosa infection, it is those who develop an empyema of the sphenoidal sinus who develop cerebro-spinal meningitis. It is accepted that a drop or two of pus in the sphenoidal sinus may cause death (Sir StClair Thomson), while the operation establishing drainage is not a serious procedure.

Fatal cases of sphenoidal sinus empyema usually develop cavernous thrombosis, clinically evident by proptosis of the eyes. In these cases the organisms present cause thrombosis. On the other hand, when the meningococcus infects the sinus with an empyema thrombosis does not occur, and the meningococcus infects the meninges. The headache of cerebro-spinal fever is frequently referred to the occipital region, to which the pain of sphenoidal empyema or manipulation is also referred.

Clinically the carriers fall into two classes, typical examples of which are given: (1) Acute, lasting about three weeks; and (2) chronic.

CLASS 1.—Private ——, a Canadian, who yielded practically a pure cultivation of meningococci from his naso-pharynx. The mucous membrane of the nose and naso-pharynx was swollen and red, and exuded a clear profuse discharge. The ostia of the sphenoidal sinus were not located by a probe. Ung. hyd. nit. dil. ℥ ss., menthol gr. v., ol. olivæ ad ℥ i. was painted into the nostrils, and the tonsils were swabbed with lot. hydrogen. peroxidi. In three weeks a swab proved negative. The acute carrier may pass on to Class 2.

CLASS 2.—The chronic carrier does not exhibit the acute congestion of the nasal mucous membrane, and the organism is not always found, suggesting the presence of a reservoir which leaks from time to time. Case W. I. is an instance of this condition. Though the patient was actually suffering from the disease the same clinical conditions appeared on rhinoscopic examination.

Three healed cases of cerebro-spinal fever were admitted from Tréport Stationary Hospital, and one of us (E. A. P.) examined them. The mucous membrane of the nose and naso-pharynx was pale, dry, and shrunken. Nasal obstruction in one case prevented location of the sphenoidal ostia, but in the other two the ostia were unusually patent, so that an empyema was almost impossible. It is credible that these men owed their recovery to this patency.

With these data in hand one of us (E. A. P.) proceeded to drain the sphenoidal sinus in Case W. I. (referred to above).

An Extract from the Notes of Lieutenant J. S. ROWLANDS, R.A.M.C., *of the Welsh Hospital.*

CASE W. I.—Aged 17, North Irish Horse, landed at Havre August 21st, 1914. December: Bad cold; slight hæmorrhage from the lung. Jan. 17th: Rouen; tubercle diagnosed. Feb. 14th: Admitted to Welsh Hospital, Netley, with "rheumatic" pains; apparent recovery. 23rd: When up and about temperature rose to 104° F. (A cerebro-spinal carrier was subsequently discovered in the patient who

occupied the opposite bed.) 24th: Severe frontal headache; erythematous rash; pain at back of neck. 25th: Definite meningeal symptoms; increased reflexes; Kernig's sign present. Lumbar puncture revealed cerebro-spinal fluid under pressure containing pus cells. No organisms discovered. (Mr. B. G. Klein's report.) 25 c.c. of serum were injected. 28th: Meningococci grown from cerebro-spinal fluid. March 6th: Patient has had in all eight injections of serum after lumbar puncture. Head still retracted. 7th: No growth from cerebro-spinal fluid. 9th: Relapse; naso-pharyngeal swab negative. 10th: Autogenous vaccine (5 millions) prepared by Mr. Klein were injected by Lieutenant Rowlands hypodermically. 12th: Soamin 5 gr. injected intramuscularly. 13th: Cyanosis. 17th: Twitching; dusky hue; incontinence of urine; no growth from cerebro-spinal fluid. 20th: Improvement and lower temperature. 21st: Another relapse. Lumbar puncture without serum injection. 25th: Meningococci in naso-pharynx. April 2nd: Meningococci not found in naso-pharynx. 3rd: Pulse 110–120; generally better; occasional delirium. 4th: Worse; lumbar puncture and serum. 7th: Meningococci not found. 14th: Meningococci were found in the naso-pharynx. Nasal treatment with ung. hyd. nit. dil. ℥ss., menthol gr. v., ol. olivæ ad ℥i.—painted into the nose. 16th: Urotropin given; pulse 110. 30th: Transferred to Royal Victoria Hospital on concentration of cerebro-spinal cases. Up to this time 17 injections of serum have been given, but relapses still occur. May 3rd: Chloroform was given by Lieutenant G. C. Adeney, R.A.M.C., and the sphenoidal sinus opened from the nose by one of us (E. A. P.); a drachm of pus escaped from the left sinus. Neither ostium could be found with the probe, so the thin bone was broken down with Heath's small mastoid burr. Meningococci were found in the glairy pus.

Subsequent history.—The patient was rather better from the first day. There is now no retraction of the head and Kernig's sign is only slightly present, but the pulse keeps up to 115–125. May 7th: Temperature again up to 101°. May 16th: During the last week patient has done well; eats and sleeps well; control of evacuations. Temperature up to 100° on one occasion; Kernig present. Speech coherent. The sphenoidal sinuses are washed out daily.

Conclusions.

1. Sphenoidal empyema is associated with cerebro-spinal fever in a causal manner.

2. Cerebro-spinal fever is a meningitis due to organisms entering the meninges from the sphenoidal sinus by way of the lymphatics.

3. Adults are less susceptible owing to a diminished tendency to sphenoidal empyema, as they are not prone to excessive swelling of the mucous membrane and so to closure of the ostia, as is seen in adolescents.

It may be advisable to open the sphenoidal sinus in all cases of cerebro-spinal fever; it is certainly advisable to treat the naso-pharynx on the lines used for the acute carrier (Class 1, *ante*).

We would define this paper as a plea for nasal hygiene in the case of recruits.

We beg to acknowledge our indebtedness to Colonel T. C. Lucas, R.A.M.C., Officer Commanding Royal Victoria Hospital, and to Lieutenant-Colonel William Sheen, Officer Commanding Welsh Hospital.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.—The annual general meeting of this society will be held at the offices of the society, 32, Craven-street, Strand, London, W.C., on Wednesday, May 26th, at 4 P.M., to receive and adopt the annual report and balance sheet and to elect officers.

GIFT TO NAIRN HOSPITAL.—In memory of her late husband, Captain Ewan James Brodie, of Lethen, of the Cameron Highlanders, who was killed in action at the battle of Ypres, on Nov. 11th, 1914, Mrs. Brodie, of Lethen, Nairnshire, has given to the Nairn Town and County Hospital the sum of £1000 to endow a bed, to be called the Lethen Bed. The gift has been gratefully accepted by the directors of the hospital.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Osteotomy of the Tibiæ.—Self-mutilation of the Penis in Boys.

A MEETING of this section was held on May 14th, Mr. J. CHARTERS SYMONDS, the President, being in the chair.

Mr. T. H. KELLOCK showed a case of Double Osteotomy of the Tibiæ ten years after operation. The patient was a boy now aged 13 years. When 3 years of age his tibiæ were badly deformed and much bowed outwards and forwards; there was a separation of the internal condyles of the femora, when the malleoli were touching, of 3 inches. Open osteotomy of the tibiæ was performed, the fibulæ fractured, and the legs put up in plaster-of-Paris splints. At the meeting the legs were seen to be quite straight, and in the skiagram there was practically no indication of the site of the osteotomies, the line of the bone being normal. The boy was again in hospital for abdominal trouble—probably tuberculous peritonitis.

Mr. KELLOCK also read a short paper on a form of Self-mutilation of the Penis in young boys. After referring to the case of a boy, aged 8, from whom he had removed a metal ring which surrounded the glans and had ulcerated through the floor of the urethra, and to another in which cotton had been twisted round the base of the glans, he said that during the last few years he had met with three other somewhat similar cases. In each of these hair had been twisted round the penis just behind the glans. The last was typical of all three. It was that of a boy aged 5. He had been circumcised at the age of 3, after which ulceration had occurred behind the glans. Eighteen months before he had come under Mr. Kellock's observation the mother had found a piece of hair hanging round the penis. For a few weeks the urine had been passed through an opening under that organ. The glans was almost completely separated and the urethra was quite divided. The glans was attached by an isthmus only one-eighth of an inch in diameter, and was much discoloured. Immediately behind the corona was a circular sulcus which was completely covered by epithelium. Under an anæsthetic, by using a crochet needle, a hair was found twisted three times round the narrow isthmus. The history and condition of the other two cases were practically the same. The treatment by plastic operation after removal of the hair was one of no little difficulty. In two he had been able to reconstruct the urethra; in the third operation had been followed by sloughing off of the glans.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

Exhibition of Cases and Specimens.—Infundibulin in Primary Uterine Inertia and in the Induction of Labour.—Complete Inversion of the Vagina.—Diphtheritic Stenosis of the Vagina.—So-called True Hermaphroditism.

A MEETING of this section was held on May 6th, Dr. W. S. A. GRIFFITH, the President, being in the chair.

Dr. J. BRIGHT BANISTER showed: (1) A Twisted Omentum, simulating twisted ovarian cyst; and (2) Placental Attachment to Fœtal Head.

Mr. T. G. STEVENS showed a specimen of Rhabdomyoma of the Vulva. The tumour was of the size of a small orange, and had existed and slowly enlarged for the past three years. It was situated at the posterior part of the labium majus and was not pedunculated. The skin over it was thinned and on the point of breaking. Microscopically, the tumour is composed of a delicate fibrillated stroma, enclosing elongated masses of protoplasm with oval nuclei, but no very clearly defined cell outlines. The general appearance of these protoplasmic masses is that of immature striated muscle. There is some longitudinal striation to be seen, but no transverse striation can be demonstrated. The stroma in parts is degenerate and shows some liquefaction and minute cyst formation. The tumour is encapsuled and shows no evidence of malignancy.—Remarks were made by Dr. HERBERT SPENCER, Dr. CUTHBERT LOCKYER, and Dr. W. BLAIR BELL.—Mr. STEVENS replied.

Mr. W. GILLIATT showed the Viscera from a fatal case of Eclampsia.

Dr. C. E. PURSLOW demonstrated a case of Tubal Pregnancy showing Fœtus undergoing Dissolution. The specimen was removed by abdominal section from a married multipara aged 31 years. Menstruation had been regular until 12 weeks before admission to hospital. Amenorrhœa then set in, and continued until a fortnight before admission, since which time there had been continuous slight loss. There had been two typical attacks of pain with faintness. On examination there was a well-marked tumour in the left iliac region. This was diagnosed as a tubal pregnancy, but the physical signs were unusual in that the swelling was entirely above the pelvic brim and could not be reached by the finger either in the vagina or the rectum. The specimen showed the unruptured distended tube. Cross sections had been made, and these showed a diameter of 2¼ inches. The tube was filled with firm blood clot, in the centre of which was an amnial cavity containing turbid fluid, and in this was found the macerated head of a fœtus of about ten weeks' development; no other part of the fœtus could be found. The specimen was interesting as showing that a fœtus as far advanced as this could macerate and disappear in the liquor amnii.

Dr. BLAIR BELL read a short communication on Infundibulin in Primary Uterine Inertia and in the Induction of Labour. It was pointed out that infundibulin, introduced by Dr Bell in 1909, had established its place in obstetrics owing to its power of promoting and augmenting rhythmical contractions during and after parturition. Dr. Bell now called attention to the fact that although the induction of labour could rarely be effected by administration of infundibulin alone, yet this extract had the power of sensitising the uterus before labour; consequently the administration of infundibulin in conjunction with other mechanical measures, such as the insertion of a pack or of bougies, led to certain and rapid induction of labour. In this connexion a case of placenta prævia, in which serious bleeding occurred in the eighth month, was mentioned. The cervix was packed with gauze, and infundibulin was injected with an excellent result. The great value of infundibulin in primary uterine inertia also was emphasised. It was pointed out that this was as noticeable when the inertia was diagnosed before labour commenced as during labour. In the former circumstances the uterus could be sensitised and its tone improved during the last two weeks of gestation, and an interesting case was quoted by way of illustration.—The PRESIDENT, Dr. R. DRUMMOND MAXWELL, Dr. J. P. HEDLEY, Dr. HUBERT ROBERTS, Dr. G. DRUMMOND ROBINSON, and Dr. PURSLOW discussed the paper, and Dr. BLAIR BELL replied.

Mr. DOUGLAS DREW read a short communication on Complete Inversion of the Vagina after Hysterectomy associated with Vesical Calculus. A patient, aged 53 years, had undergone a total hysterectomy for fibroids 12 years previously. Within a year of the above operation the vagina became completely inverted. The condition had not been treated for the past ten years. A large calculus was removed by suprapubic cystotomy, and the prolapse was treated by Le Fort's operation and colpoperineorrhaphy.

Dr. DRUMMOND MAXWELL read a short communication on Diphtheritic Stenosis of the Vagina.—Remarks were made by the PRESIDENT and Dr. SPENCER.

Dr. BLAIR BELL read a paper on So-called True Hermaphroditism. The meaning of "true hermaphroditism," so far as man is concerned, was first discussed, and contrasted with the phenomenon seen in invertebrates. A complete classification of hermaphroditism in all its varieties was given to illustrate the biological importance of the condition. It was pointed out that the so-called "true hermaphroditism" in man should be termed "glandular partial hermaphroditism." All the really authentic cases (probably four in number, apart from Dr. Bell's case) have had ovo-testes. Many of the recorded cases of "true hermaphroditism" had been disproved, and this specially applied to those cases in which a separate ovary and testis had been recorded. Further, all the cases with ovo-testes had shown predominating feminine characteristics. Dr. Bell's case was that of a patient who had presented all the characteristics of femininity, with regular menstruation, until 18 months after puberty, when menstruation ceased and masculine characteristics developed; these included a bass voice and an excessive growth of hair on the body with masculine distribution. At first a diagnosis of suprarenal hyperplasia was made, and the patient was treated with ovarian and thyroid extracts. Later laparotomy was performed, and sections were removed from both gonades. The left had the macroscopic appearance of a testis. The pathologist, however, reported that the left gonad was the seat of columnar carcinoma. Consequently the abdomen was reopened, and the gonades, tubes, and fundus uteri were removed. On examining the sections Dr. Bell came to the conclusion that the left gonad was an ovo-testis and not the seat of a malignant growth. The patient was therefore a glandular partial hermaphrodite. The histological appearances were fully discussed, and the relation of ovo-testes to the normal development of the gonades was considered. Finally, criteria determining glandular partial hermaphroditism were suggested.

LARYNGOLOGICAL SECTION.

Annual General Meeting.—Exhibition of Cases and Specimens.—Cases of Warfare Injuries and Neuroses.

THE annual general meeting of the above section was held on May 7th, Dr. G. WILLIAM HILL, the President, being in the chair.

Dr. J. A. M. BROECKAERT, of Ghent, ex-President of the Belgium Society of Oto-rhino-laryngology, was unanimously elected a corresponding member of the section.

The following cases and specimens were shown:

The PRESIDENT: A man, aged 55 years, in whom a Malignant Tumour at the base of the tongue had entirely disappeared after treatment with radium needles.

Mr. W. M. MOLLISON: A case for diagnosis.

Dr. J. DUNDAS GRANT: A patient with Deformity of the Nose improved by a submucous resection of the nasal septum.

Dr. IRWIN MOORE: 1. A boy from whom a Naso-pharyngeal Fibroma had been removed through the mouth without any preliminary operation. 2. A man with a Growth of the Antrum extending into the Naso-pharynx. 3. A patient with Malignant Stricture of the Œsophagus who had been successfully treated with a Hill's tube for a period of nearly six months.

Mr. W. STUART-LOW: A patient suffering from Recurrent Columnar-celled Carcinoma of the Antrum.

Dr. FREDERICK SPICER: A case suffering from a new growth in the post-nasal space.

Dr. W. H. JEWELL: A specimen showing a Halfpenny impacted in the Œsophagus.

Mr. W. DOUGLAS HARMER: An old man with a Pharyngeal Fistula which had appeared after an incision of an abscess in the neck.

Sir WILLIAM MILLIGAN read a paper giving a description of the cases of Warfare Injuries and Neuroses treated at the 2nd Western Military Hospital. This was supplemented by a demonstration of X ray photographs by Mr. F. H. WESTMACOTT.—Patients who had been injured in the war were shown by the PRESIDENT (2), Mr. HERBERT TILLEY (3), Dr. J. COUBRO POTTER (1), Mr. J. F. O'MALLEY (5), Mr. WALTER G. HOWARTH (1), Sir STCLAIR THOMSON (2), Mr. G. H. L. WHALE (10), and Mr. STUART-LOW (1). A general discussion of the subject was held, in which the following joined: The PRESIDENT, Sir FELIX SEMON, Dr. W. J. HORNE, Sir STCLAIR THOMSON, Mr. TILLEY, Dr. DUNDAS GRANT, Mr. STUART-LOW, Mr. E. D. D. DAVIS, Dr. COUBRO POTTER, and Mr. O'MALLEY.—Sir WILLIAM MILLIGAN and Mr. WESTMACOTT replied.

MEDICAL SOCIETY OF LONDON.

Exhibition of Early Books on Naval and Military Surgery and other Objects of Medical and Surgical Interest.

THE annual general meeting of this society was held on May 10th, Sir J. BLAND-SUTTON, the President, being in the chair.

Mr. D'ARCY POWER gave a short demonstration illustrated by the epidiascope on Early Books on Naval and Military Surgery from the society's library. He prefaced his demonstration by exhibiting a silver coin which had been lent to him for the purpose by Mr. Laurie Lawrence, F.R.C.S. Eng. The coin was a silver penny struck in the reign of Henry III.

by Thomas at London. The interest of the coin lay in the fact that *Thomas of Weseham* who struck the coin was the first serjeant-surgeon of whom anything is known. He had property in Coleman-street and was steward of the forest of Cannock. In 1260 the King granted him a die to mint with. The coin shown was one of three specimens found a few years ago at Brussels amongst a hoard of 100,000 pennies struck in the reign of Henry III. It was of the type minted between 1260 and 1270.

A portrait of *John Arderne* was then shown. He was born in 1307 and lived to a good old age. It was possible that he was at the battle of Crécy. It is certain that he was on terms of intimacy with many of the heroes whose deeds are told in Froissart.

There is no known picture of *William Clowes*, but his autograph was shown by the kindness of Dr. F. W. Cock, F.S.A. Clowes served in Flanders with the Earl of Leicester in 1583 and in the fleet against the Armada in 1588. He was a surgeon to St. Bartholomew's Hospital. His book "De Morbo Gallico" was shown.

A portrait of *John Woodall* (1569–1643) was exhibited, and with it a copy of his great book on surgery, "The Surgeon's Mate." He says that he was a poor man who had travelled extensively in France, Germany, and Poland. He settled in London during the Great Plague of 1603, and was afterwards appointed surgeon-general to the East India Company. His book served for many years as the text-book of naval surgery.

Richard Wiseman was shown to be a delicate-looking man who was born about 1621. He entered the Dutch Naval Service, but in the Civil War he became personally attached to Charles I. His chirurgical treatises were models of surgical literature.

John Ranby (1703–1773) is interesting as being the last serjeant-surgeon who accompanied his Royal master on active service. He was present with George II. at the battle of Dettingen in 1743. He wrote a tract on "The Method of Treating Gunshot Wounds," which set the fashion for many subsequent years. It is interesting now because he foreshadowed that associated aid for the wounded which has only recently been adopted by the formation of the Royal Army Medical Corps.

George James Guthrie (1785–1856) was the great surgeon of the Peninsular War in its later phases. He was appointed assistant surgeon to the Twenty-ninth Regiment when he was only 16 years of age, his colonel being 24 years old. Yet in spite of their youth the regiment was said to be the best led and the best doctored in the service. Guthrie's claim to recollection was that he taught assiduously that the large arteries were capable of digital compression. It was not necessary, therefore, to tie them in their continuity before operating, as had hitherto been the practice of military surgeons. He also taught that both ends of a wounded artery must be tied.

HARVEIAN SOCIETY OF LONDON.—A meeting of this society was held on May 13th, Dr. G. de B. Turtle, acting President, being in the chair.—The following cases were shown:—Dr. W. H. Willcox: Sarcoma of the Peritoneum in a man aged 29.—Dr. Graham Little: Two cases of Dercum's Disease; the lipomata were roughly symmetrical along the courses of nerves and in one case distinctly tender.—Mr. V. Z. Cope: Case for diagnosis of an excrescence on the leg.—Mr. Kenneth A. Lees: 1. Fractured Base in a girl in whom cranial nerve paralysis had occurred some days after the initial lesion. Taste was lost over the anterior two-thirds of one side of the tongue. 2. Sarcoma of the Thigh. 3. Cervical Rib.—Dr. F. S. Langmead: Graves's Disease in a girl aged 11.—The cases were discussed by the President, Dr. Graham Little, Mr. Cope, Mr. Lees, and Dr. Langmead.

THE NURSING OF TUBERCULOUS PATIENTS.—The Local Government Board have expressed their willingness to consider applications from councils for the employment of dispensary nurses who may have sufficient time to undertake the nursing of tuberculous patients in their own homes. When the needs of the army no longer preclude it, permission will be considered for the employment of additional nurses, either direct or by arrangements with voluntary nursing associations.

Reviews and Notices of Books.

Infant Mortality.

By HUGH T. ASHBY, B.A., M.D. Camb. Cambridge: The University Press. 1915. Pp. 229. Price 10*s.* 6*d.* net.

THIS recent addition to the Cambridge Public Health Series is a painstaking digest of the vast literature on the subject of infant mortality which has of late years accumulated through the labours of our Government and public health departments, and the deliberations of both national and international conferences. The mere reading of this literature is a serious undertaking; the epitomising of its main results in a form which can be understood by that large section of the public which is now beginning to take an interest in the subject is, indeed, a task before which the most courageous might well hesitate. On the whole, Dr. Ashby has done his work exceedingly well and has given fair and unprejudiced acknowledgment to the several factors which have contributed towards the great fall in the mortality rate among infants which the last ten years have witnessed in this country. The author clearly shows that the most important element in the successful rearing of infants is the intelligent coöperation of the mother, and that good housing and sanitary conditions are contributory factors of great significance.

In dealing with the special causes of infant mortality Dr. Ashby classifies them into three groups: (1) Preventable causes; (2) partially preventable causes; and (3) non-preventable causes. Of the preventable causes diarrhœa is described as the one which causes the largest number of deaths. It is strange that while due emphasis is given to the part which micro-organisms, improper feeding, and chill play in the etiology of this devastating disorder, practically no mention is made of the influence of heat. This question was to have been the chief subject for discussion at the International Conference on Infant Mortality, which would have been held in London this summer had not the war interfered with the arrangements. As causative factors considerable prominence is given to the house fly and the use of condensed as well as unboiled milk.

In discussing the ways by which infant mortality can be lowered the author states that the development of the infant depends on the following factors: (1) Inheritance, (2) environment, and (3) food. He says little can be expected from the side of eugenics except by trying to prevent those marrying who are physically unfit. It is curious that food should be regarded as something apart from environment. And again, there is something almost paradoxical in the view, which Dr. Ashby holds in common with many other authorities, that nurture as opposed to nature begins to take effect at the moment of conception—that is to say, that the hereditary factor is all-important up to the moment that the germ cell and the sperm cell fuse together into one organisation, and that from that moment congenital influence or maternal nurture begins to take effect. Are not the two parental cells subject to the influence of nurture before fusion? Or, in other words, is not what is generally called the hereditary factor also in some degree controllable?

Dr. Ashby regards the part which the official health visitor is likely to play in the prevention of infant mortality as the most hopeful of all those

means which have so far been tried. He devotes some space to an account of the available facilities for training, and while giving full acknowledgment to the value of the amateur and voluntary health worker, he appears to think that they will not play so important a part in the future as they have in the past.

Differential Diagnosis, presented through an Analysis of Cases.

By R. C. CABOT, M.D., Assistant Professor of Clinical Medicine, Harvard University Medical School, Boston. Vol. I., pp. 764, 193 illustrations, 385 cases (Third edition). Vol. II., pp. 710, 254 illustrations, 317 cases. London and Philadelphia: W. B. Saunders Company. 1915. Price 24s. net.

THE method of teaching medicine by the description and discussion of individual cases of disease is both admirable and time-honoured. It dates, at any rate, from the days of Hippocrates, whose seven books, *De Morbis Vulgaribus*, contain records of numerous illustrative cases. The method was brought to a very high pitch of perfection in Morgagni's epoch-making two folios, *De Sedibus et Causis Morborum*, published at Venice in 1761, wherein especial stress was laid on the morbid anatomy of disease as illustrated by some 640 carefully conducted post-mortem examinations. The same method, developed from the point of view of the differential diagnosis of disease, is employed in Dr. Cabot's book now before us.

The first half of Vol. I., now in its third edition, appeared first in 1911, and is concerned with the diagnostic significance of pain in various parts of the body, as illustrated by 212 case-histories; the second half of the volume is given to 11 chapters of case-histories illustrating fever, rigors, convulsions, coma, cough, and other such prominent signs or symptoms. Vol. II., now appearing for the first time, contains 19 more chapters, and in each is given a careful study of a further important sign or symptom. The chapters in each volume are preceded by a table showing the relative frequency of the commoner causes of each symptom, based on about 180,000 cases treated at the Massachusetts General Hospital during six recent years, and on statistical articles from the literature. Each case is presented in the form of a summary, often with a diagram of its physical signs and a reproduction of its hospital temperature chart; then follows a "discussion" of its diagnosis, and finally, a paragraph on its "outcome" and the diagnosis, or error of diagnosis, that was made. In the first volume the diagnosis is definitely stated, having a line to itself at the end of each case described. This arrangement catches the reader's eye very satisfactorily, but unfortunately is not adopted in the second volume, where the reader has to search for the true diagnosis in either the "discussion" or the "outcome," often a lengthy process, requiring the wasteful expenditure of mental energy.

Dr. Cabot has made an excellent choice of prominent symptoms for illustration, and his typical cases are valuable as dealing with the commoner diseases rather than with rarities. The descriptions are fully and clearly written, and, considered as problems in diagnosis, are often of great interest. Not a little interesting, too, is the type of disease that they show to be prevalent in the Boston Hospital. Lead poisoning, for example, seems to be fairly common among water-drinkers; to judge by the case-histories, chronic alcoholism seems to be common, yet Dr. Cabot remarks (Vol. II., p. 269) that next to pregnancy "nephritis is the commonest cause that I know for morning vomiting." Again, in his table of some 3500 cases of hæmoptysis, he has to record no cases of aortic valvular disease, congenital heart disease, bronchitis, or exophthalmic goitre, for example, a statement that merely proves how widely the signs shown by different patients in different countries, and recorded by different observers, may vary in any one disease.

The book is clearly written, and may be cordially recommended to senior students of medicine, and to medical practitioners who wish to exercise their diagnostic powers. As Dr. Cabot points out, incorrect diagnoses are usually due to failure to recognise the physical signs present; less often they result from the inability to think correctly. His book is calculated to stimulate the thinking faculties most effectively.

Dynamic Evolution.

By CASPER L. REDFIELD. London and New York: G. P. Putnam's Sons. 1914. Pp. 210. Price 6s. net.

THE author of this book attempts to found a theory of evolution and degeneration upon the principles of physics. The abundance of ideas and considerable originality which characterise the work are unfortunately accompanied, as so often happens, by deficient knowledge and study of the facts. Conclusions and generalisations are thrown promiscuously before the reader, supported by evidence which is literally worthless.

The author starts from the assumption that "in the organic world we find bodies having forms of energy peculiar to themselves, which energy acts to individualise the bodies with which it is associated." This proposition is contrary to the opinion of most physiologists, but Mr. Redfield does not apparently know that there is any problem at issue in his statement: his attitude is simply a naïve assumption without a second thought given to it. After discussing the evolution of trotting horses, he comes to man. His main proposition is that the mental capacity of an individual is dependent on the amount of mental work performed by his father before begetting him. Hence the most capable men were born when their fathers were comparatively elderly and had worked hard. The effects being cumulative, the greatest men of all are those whose grandfathers, as well as fathers, were advanced in life before having children. This conclusion having been attained by the most dubious imaginable chain of deductions is clinched by printing lists of distinguished men whose births are separated by more than the average interval from the births of their fathers and grandfathers. The author states that he has never been able to find out anyone of considerable eminence, with the exception of Jonathan Edwards, who was born less than 58 years after his paternal grandfather. Furthermore, the mental characteristics of men are alleged to be dependent on the age of their fathers at their conception. They are military and aggressive if their fathers were less than 31; artistic, musical, and literary, if their fathers were between 31 and 40; statesmen, if between 41 and 50; moralists and philosophers, if their fathers were over 51. Why then, we may ask, was John Stuart Mill born when his father was only 33, and Herbert Spencer when his father was only 30? How was it that the great Lord Chatham was only 55 years

younger than his paternal grandfather? But it is superfluous to cite illustrations in disproof of a theory so inadequately supported as that before us.

Another of the author's most important theories is that longevity likewise is dependent on the age of the father when the child was born. The author reaches this result by the following deduction: cell-division becomes slower as age advances; an elderly father, whose cell-division is slow, will produce a son whose cell-division is also slow; that son will therefore live long. And once again the argument is finished by the crudest possible statistics, which as set forth are quite powerless to prove anything at all, far less the conclusion desired by the author. Before Mr. Redfield attempts another book he should curb his imagination by contact with facts; we have here a raw collection of impulsive and untested ideas.

Malay Poisons and Charm Cures.

By JOHN D. GIMLETTE, M.R.C.S., L.R.C.P. Lond., Residency Surgeon of Kelantan. London: J. and A. Churchill. 1915. Pp. 127. Price 3*s.* 6*d.* net.

THE Malay States are but little known to any but extensive travellers, but they are a most interesting country from many points of view, whether we consider their anthropology, zoology, botany, or geology. The main subject of Mr. Gimlette's little book—namely, Malay medicines and poisons—is, as he says in his preface, of special scientific interest, and presents a large field for medical research.

As in all primitive countries medicine among the Malays is largely mingled with magic and charms, and Mr. Gimlette's first chapter is devoted to an account of the Malay "medicine man," who is called "bomor." It is curious to note the survival of ancient Greek philosophy in the modern philosophy of the Malay bomor, whose belief is given on p. 5 as follows: "According to the Kelantan bomor, disease is sent by God, and it springs from the elements, fire, air, earth, and water." Compare with this Plato in the Timaeus, cap. 82: "Now everyone can see whence diseases arise. There are four natures out of which the body is compacted, earth and fire, and water and air, and the unnatural excess and defect of these ..... produce diseases and disorders."[1] In the Kelantan belief, the elements have spirits (jinn) associated with them, and every human being has in addition an internal jinn peculiar to himself, without whose coöperation the external jinn of the element is powerless. Seeing that the Malays are Mohammedans the elemental doctrine probably reached them by way of Galen and the mediæval Arabic physicians. Diseases are held to become more powerful when the thought of man is fixed upon the symptoms, a doctrine which, as Mr. Gimlette reminds his readers, is in some way comparable to "Christian Science." Charms and spells are important adjuvants to the operation of medicines, and the author gives a selection, some translated and some, in an appendix, in the original.

Of the poisons mentioned in the book a good many are used as medicines—for instance, datura, opium, and arsenic. Of poisons used as such a certain number probably act solely as mechanical irritants, such as bamboo hairs, fish spines, and the bristles of a sea worm, though in the two animal products there is presumably some inherent poisonous substance, as is the case with the spines of the weaver fish of our own coasts. The bristles of hairy caterpillars are also administered as irritants. Most of the vegetable poisons are of the paralytic intoxicant type, but some cause choleraic symptoms, and some are applied to the skin to cause acute dermatitis. It is interesting to find that Malay poisoners hold the tradition of the poison which will kill at any distance of time according to the dose. "It is said that an accomplished Malay criminal can give a single dose of poison and time the death of his victim within three months, six months, or even three years, according to the dose and particular combination he uses." Mr. Gimlette adds that no clinical case of this practice has come under his own observation. The same tradition exists in Persia to this day, and it was commonly told of the sixteenth and seventeenth century Italian poisoners; but, though it would seem that so universal a tradition must have some foundation, no such poison is, so far as we know, known to science.

Mr. Gimlette modestly says that the ground of the field of medical research on the subject of Malay poisons is hardly broken in his book. He has, however, given us enough to make us express the hope that he will continue his tilling.

[1] Jowett's Translation.

LIBRARY TABLE.

Paris Waits: 1914. By M. E. CLARKE. London: Smith, Elder, and Co. 1915. Pp. 289. Price 5*s.* net. —This little book is made up of a series of articles dealing for the most part with life in Paris from just after the declaration of war until the return of the Government from Bordeaux. Some of the chapters, however, deal with other places, such as Senlis, Meaux, and Orleans. Miss Clarke is a vivid and yet quite simple writer, and her descriptions of the psychology of Paris during the most anxious time are extraordinarily interesting. Of individual cases Miss Clarke relates a very striking one of a Parisian "who was well known to be among the most neurasthenic of Parisians. Nothing pleased him for more than five minutes, and he spent his days in grumbling, taking scented baths, dabbling in the arts, and trying on new clothes." He was called up for service, went to the front, became ill, and was sent back for treatment, and his one idea was to get back to service. And, as his sister said to Miss Clarke, "You should see him now. He refuses to shave, he thinks baths are superfluous, and we had to have a private dining-room in the hotel when he left the hospital because he refused to use a knife and fork. He says they complicate existence, and he told his wife she did too. C'est épatant, because, you see, if he has to go back it is much better that he should go feeling like that. He will be safer and we shall be less unhappy." If the reader wants a real thrill let him read the experience of the British Flying Corps mechanics related on p. 84, which recalls our youthful feelings on reading the escape of Monte Cristo. If the "seventeenth century prophecy" quoted on p. 113 *et seq* is authenticated it is certainly sufficiently amazing.

La Pratique Héliothérapeutique. By le Dr. JAUBERT (d'Hyères). Paris: Baillière et Fils. 1915. Pp. 96. Price 1.50 francs.—This is a small book of practical details regarding the use of the sun's rays in therapeutics; the theoretical side of the subject is touched upon only so far as it helps to explain the reason for the various modifications adopted in

practice. The author has a very strong belief in the value of the sun bath in the convalescent stage, while also considering it an important adjunct to other therapeutic measures in cases of gout, rheumatism, diabetes, and nephritis. Many forms of arthritis, including tuberculous affections, are benefited by it materially, and the method seems to be particularly valuable for children and young subjects generally. To practitioners in this country the volume is of value chiefly as indicating a line of treatment for obstinate cases where the patient's circumstances allow of a visit to places abroad that are more abundantly supplied with sunlight.

The Pharmaceutical Pocket-book for Practitioners and Students. Edited by JOHN HUMPHREY, Ph.C., F.J.I. Fifth edition. London: Pharmaceutical Press. 1915. Pp. 360. Price 1s. 6d. net.—The fifth edition of this pocket-book will probably be of service to pharmacists rather than to members of the medical profession, although the latter will find it of use as a book of reference. For example, it contains valuable details relating to the schedule of poisons and to the sale of poisons in Great Britain, two subjects which are frequently mentioned in coroners' courts. Some trouble has been taken to convert the metric formulæ of the British Pharmacopœia into their equivalent imperial quantities. A comparison of the two columns is a sufficient justification of the adoption of the metric system—for example, it is interesting to compare the round numbers of decoctum aloes compositum with the awkward fractions of the imperial system. A section deals with the art of dispensing of doses and official medicaments, and a tabular statement is given of the materia medica of vegetable and animal origin. After details concerning equivalents and measures of length, mass and capacity, and of thermometric equivalents, various analytical data are appended dealing with the analysis of water, of milk, and of urine. It is interesting to find that nearly 80 pages are devoted to a dictionary of synonyms; happily most of these are not officially recognised. The section relating to the treatment of poisons is too concise.

JOURNALS AND MAGAZINES.

Annales de l'Institut Pasteur, April, 1915.—The diagnosis of tuberculosis by reactions in the serum is still in the experimental stage, and in view of the practical importance of the subject any carefully controlled researches which seem to promise a clinical application are of special interest. In this issue MM. E. Debains and F. Jupille record their observations upon a complement-fixation test which in their hands has afforded satisfactory results. They suggest that the difficulty found by previous workers has been in obtaining a satisfactory antigen, since that obtained from cultures of the tubercle bacillus upon a glycerin-peptone medium is variable. MM. Calmette and Massol found that a more satisfactory antigen was obtained by maceration of the bacillary bodies in peptone water; indeed, with such an antigen they obtained 92·5 per cent. of positive reactions in 134 serums from human tuberculous patients examined by the Bordet-Gengou method. MM. Debains and Jupille have, however, employed a different antigen—viz., Besredka's tuberculin obtained by growing the tubercle bacillus upon an egg-bouillon medium. They have rejected other antigens because they have found some of them inconstant in their action, while others have proved to be hæmolytic in the presence of normal serums, although by themselves they might not exert any action upon a hæmolytic system. The method they adopt is to employ a fixed dose of the antigen and to vary the quantity of complement. The intensity of the reaction is determined by measuring the increasing doses of the complement, previously diluted and titrated, which the serum to be examined can fix in the presence of the antigen. They first titrate the complement, using a dilution of 1 in 30, with at least two separate normal serums. The actual method of carrying out the reaction consists in placing 0·2 c.c. of the serum to be tested (previously heated to 56° C. to inactivate it) in each of five test tubes. To all but one of these 0·3 c.c. of the antigen, previously titrated, is then added, and to all of them certain measured quantities of the diluted complement and of saline solution. After half an hour at laboratory temperature and an hour in the incubator 0·1 c.c. of the hæmolytic amboceptor and 0·1 c.c. of a 20 per cent. suspension of washed red corpuscles are added to each tube, and all are replaced in the incubator for half an hour. They are then kept at the laboratory temperature for 20 minutes and read off. The results are recorded as positive, negative, or partially positive. The tube to which no antigen is added is a control to demonstrate that the serum examined is not anti-hæmolytic by itself. It is essential to control the reaction with at least two normal serums. MM. Debains and Jupille have found that serums which give a very strong positive Wassermann reaction are capable of fixing complement in the presence of Besredka's tuberculin, which they explain by supposing that the lipoids of the yolk of egg modified by the culture of the tubercle bacillus act as a syphilitic antigen. It is therefore advisable to do a Wassermann reaction at the same time as the tuberculous reaction. The authors have studied the blood of 610 persons, of whom 580 were examined clinically. The general summary of their results shows that of 59 patients suffering from pulmonary tuberculosis in the second and third stages with poor general condition 81·3 per cent. gave a positive reaction, of 95 patients in the first and second stages in good general condition 90·3 per cent. were positive, and in 61 cases with localised or doubtful signs 93·4 per cent. were positive. Fifty-two cases in the first or second stage, but with intercurrent affections, gave 89 4 per cent. of positive results. In 12 cases of pleural effusion of tuberculous origin only 9 per cent. were positive, while in 15 cases of dry pleurisy as many as 86·6 per cent. were so. In 18 cases of tuberculous meningitis and in 10 cases of miliary tuberculosis the results were uniformly negative. In 75 cases of tuberculosis in regions other than the lungs the positive results were as high as 96 per cent. Of patients clinically non-tuberculous, 121 were examined with only 17·3 per cent. positive, while 62 healthy persons only showed 3·2 per cent. of positive results. The number of positive Wassermann reactions obtained was 24 per cent. among the tuberculous patients and 35·5 per cent. among the others. If the Wassermann reaction is strongly positive and the clinical examination is doubtful, the result as regards the tuberculous reaction must be taken with reserve. It is interesting to note that in advanced pulmonary tuberculosis the reaction may be absent or only partial, that it is very often negative in pleural effusion, and almost invariably so in miliary tuberculosis and tuberculous meningitis. The authors are of opinion that their serum reaction is of definite clinical value, and their results if confirmed by other observers on a large scale would seem to justify their claim.

Revista de la Sociedad Medica Argentina.—This review for November and December, 1914, which has only just reached us, comprises some 400 odd pages, and those responsible for its production may be congratulated on the interest of its contents, the excellence, alike from the scientific and from the technical point of view, of its illustrations, and the quite noticeable beauty of its typography, the latter a feature which has struck us in other periodicals from Spanish and Portuguese America. The present volume opens with an article on the topography of the sphenoidal sinus by Dr. Ricardo Laspius, which contains much to interest both anatomists and pathologists, and is enriched by a number of admirable photographic illustrations.—Dr. Udaondo and Dr. Castex write on the myelodysplasia of Fuchs, citing three illustrative cases of this malady, the main characteristic symptoms of which are nocturnal enuresis, a general infantilism, certain skeletal malformations, hypertrichosis, and a marked degree of webbing between the second and third toes.—Dr. Ragusin recounts four interesting

cases of twin birth in which, while one twin exhibited marked signs of congenital syphilis, the other was perfectly healthy.—Dr. Viñas describes an operative procedure—invagination of the appendix—which he advocates as an operation of election in all cases of early interference in which advanced lesions of the appendix and adhesions are absent. The appendix, after ligation and division of its mesentery, is invaginated into itself like the finger of a glove, the invagination being continued until the organ has completely disappeared into the cæcum, the little pucker left at the site of the base of the appendix being closed by a few peritoneal sutures. The invaginated organ, deprived of blood-supply, necroses and sloughs off into the cavity of the cæcum and passes per anum some five or six days after the operation. The author recommends this operation as easy, rapid, and, owing to the avoidance of any opening of the appendix, aseptic.—Among other articles of interest special mention may be made of that by Dr. Gonzalez on gravido-dynamic deformities of the pelvis, in which he maintains the erroneousness of the generally accepted view that dystocia from pelvic deformity is impossible in a woman to whom normal parturition has occurred, unless osteomalacia be present—in other words, that pelvic deformity, other than osteomalacia, is always primitive, independent of the gravid state and antecedent to the first parturition. Dr. Gonzalez maintains, on the contrary, that the gravid state may itself be a determining cause of pelvic deformity, and that the shape of the pelvis may alter between one parturition and the next, quite apart from osteomalacia. The article is copiously illustrated by outline figures of museum specimens and is an able and scholarly presentation of an interesting thesis.

In the *Revista Medica del Uruguay* for March Dr. Luis Morquio contributes a valuable article on the Diagnosis of Appendicitis in the Child.

Malaria e Malattie dei Paesi Caldi. Anno VI., April 20th, 1915. Rome: Via Farini 62.—This issue contains a report of a case of beri-beri by Dr. Lacava. The case was a typical one, and is of interest from the fact that it occurred sporadically in a village of Calabria in a girl who had never left her native country but who habitually ate large quantities of rice, sometimes to the exclusion of all other diet.—Dr. G. de Angelis, continuing his investigations on the streptobacillus pellagræ, which is considered by Professor Tizzoni to be the cause of that disease, has been able to demonstrate the presence of the organism in the stools of patients suffering from it. The identity of the organism in the stools with that obtained from the blood was proved by morphological characters and pathogenic culture; but while in the blood it assumes variations of form in relation to different phases of the disease, in the stools it always presented a more definite and fixed form.—Dr. F. Giugni has a paper on the transmissibility of canine leishmaniasis. Two puppies which lived for two months with a bitch affected severely with spontaneous leishmaniasis, and subsequently dying of it, were quite unaffected by it, although every measure was taken to favour the transmission of infection by fleas. Another paper on this disease is by the same author on the behaviour *in vitro* of Leishman bodies in the presence of other micro-organisms.—Sprue in Calabria and Sicily is the subject of a clinical contribution by Professor N. Gabbi, in which he describes several cases in a lucid and interesting manner. He inclines to the germ theory as the cause of this disease, and considers it probable that the infection is imported from the East by vessels which arrive at the port of Messina.

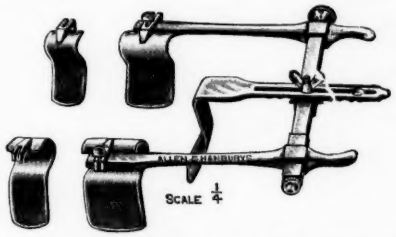
AT the Senate House, Cambridge, the Rede lecture has been delivered by Dr. Norman Moore, who took as his subject St. Bartholomew's Hospital in Peace and War.

Dr. and Mrs. A. C. Jordan are giving a concert on Saturday, May 29th, at 4.30 P.M., at 13, Upper Wimpole-street, in aid of the "Music in War-time" Fund. The tickets, 5*s.* each, will include tea, and payments received in excess of the price of tickets will go to sufferers from the loss of the *Lusitania*. The artists include Madame Amina Goodwin, Miss Cecilia Gates, Miss Adelina Leon, and Mr. Edward Halland.

New Inventions.

A SELF-RETAINING BLADDER RETRACTOR.

THE efficient exposure of the interior of the bladder is the key-note to modern operations on that viscus. Some years ago I introduced a bladder retractor ("Genito-Urinary Surgery," Messrs. Cassell and Co.) with an easily grasped handle which gave a maximum exposure of the interior of the bladder for the size of the abdominal incision. In order to diminish the amount of assistance required at operations on bladder growths I have had the blades of the bladder retractor fitted on an abdominal frame so that they can be slipped into the cavity of the bladder, separated, and remain in place, retract the



abdominal wall, and hold the lateral walls of the bladder well apart. The blades are detachable; so that a small or large size blade may be used, as the exigencies of the operation demand. A third blade is attached by means of a screw to the transverse base of the frame. It is movable in an antero-posterior direction and serves to push back the posterior wall of the bladder.

The instrument, which is shown in the illustration, is made by Messrs. Allen and Hanburys, Limited, Wigmore-street, London, W. It has been in use for two years, and has been proved to be highly efficient.

J. W. THOMSON WALKER, F.R.C.S. Eng.

Queen Anne-street, W.

(1) ELECTRICAL STERILISER; AND (2) ELECTRICAL COOKING APPARATUS.

THE utilisation of electric energy for general heating purposes is rapidly being brought into line with economic considerations. The principle, of course, was established long ago, but the problem has been to render the system available for practical purposes at a cost consistent with that entailed by existing methods. A very important advance in this direction has been made by the resistance system introduced by Mr. R. F. Venner, of the Venner Electrical Cooking and Heating Appliances Co., Ltd., of Venelectric Works, Wandsworth-road, London, S.W. In using what may be called naked resistances, which amount to coils of red-hot wire, there is an obvious loss of heat in many ways. One requirement is to insulate the resistances effectively against loss by radiation and at the same time to secure their heat for the given purpose. Further, it is desirable not only to utilise this heat, but to distribute it uniformly. Mr. Venner effects this by immersing the resistance coils in a specially prepared heavy petroleum oil. It is as though the filament of an ordinary electric incandescent lamp were submerged in oil, which would prevent its getting red-hot, but at the same time the oil would reach a temperature sufficiently high for cooking or other purposes. The oil must be capable of resisting carbonisation or charring, a negative quality which is obtained by selecting an oil that has received a special preparatory process. It only remains, therefore, to construct a suitable container jacketed with this oil in which the resistance coils are immersed. This container can take the form of a sterilising tank, a grilling pan, a kettle, a roasting chamber, and so forth. The thermal efficiency of the steriliser has been certified to be 82·6 per cent., while the value of the resistance shows no impairment even after running continuously for 100 hours. In hospital practice this steriliser is of the greatest convenience.

We have made a personal trial of the silver grill and the results are very satisfactory. The heating efficiency is reached in two and a half minutes and then a chop, steak, egg, or slice of ham can readily be cooked in a surprisingly short time. The cooking is effectively done, the contact with the hot plate causing coagulation of the albumins so that the juices are retained, with the result that meats are tender and appetising. It makes omelettes perfectly, and a sole fried by this method is most attractively cooked. In one experiment 3 lb. of steak were cooked in 9⅓ minutes, the current taken being 71·25 watts, which at the rate of 4½*d.* per unit costs about ¼*d.*; in another experiment 2½ lb. of kidney and mushrooms were grilled in 6½ minutes with a consumption of 54·16 watts, the cost of which, on the same basis of charge, would be less than ¼*d.* The introduction of this method marks a considerable advance in the application of electricity to cooking purposes on the score of both economy and efficiency. The grill can be used in any room of the house in which there is an electric lamp, obviously a convenience in a time of sickness or emergency.

A MONTHLY RECORD OF ATMOSPHERIC POLLUTION.

COMMITTEE FOR THE INVESTIGATION OF ATMOSPHERIC POLLUTION:

Summary of Reports for Month ending Feb. 28th, 1915.

1	2	3	4	5	6	7	8	9	10	11	12
			Metric tons of deposit per square kilometre during month.								
			Insoluble matter.			Soluble matter.			Included in soluble matter.		
Place.	Correspondent.	Rainfall in millimetres.	Tar.	Carbonaceous other than tar.	Ash.	Loss on ignition.	Ash.	Total solids.	Sulphate as (SO_4).	Chlorine (Cl).	Ammonia (NH_3).
ENGLAND—											
Birmingham, Central ...	Dr. J. Robertson, M.O.H.	89	0·19	3·04	7·57	1·60	5·80	18·20	3·60	0·60	0·07
,, Aston	,,	83	0·09	2·55	7·76	1·40	4·80	16·60	3·10	0·40	0·04
,, S.W.	,,	99	0·05	0·52	1·33	0·70	2·30	4·90	1·00	0·40	0·03
Bolton	Dr. J. E. Gould, M.O.H.	114	0·05	1·24	3·29	3·63	8·63	16·82	5·00	2·05	0·08
Exeter	Mr. F. Southerden.	138	0·03	1·41	2·63	2·66	4·49	11·22	2·57	1·24	0·05
Kingston-upon-Hull	Mr. A. R. Tankard, Public Analyst.	79	0·05	2·02	4·13	2·53	5·07	13·80	2·61	0·76	0·07
Liverpool	Dr. E. W. Hope, M.O.H.	62	0·25	1·70	5·15	2·24	5·62	14·96	2·83	0·82	0·12
London—											
Meteorological Office ...	Director, THE LANCET Laboratory.	72	0·10	0·05	2·66	2·78	5·18	11·00	2·30	0·33	Traces.
Embankment Gardens...	Mr. J. Ollis, Chief Officer, Public Control Department, L.C.C.	74	0·50	4·16	10·70	2·07	8·45	25·88	3·42	1·92	0·08
Finsbury Park...	,,	78	0·12	1·52	4·92	0·31	5·77	12·64	2·37	0·66	0·03
Ravenscourt Park	,,	65	0·04	1·16	3·81	1·68	3·50	10·19	1·94	0·64	0·08
Southwark Park	,,	79	0·04	2·03	4·94	0·63	5·69	13·35	3·02	0·78	0·05
Wandsworth Common ...	,,	39	0·00	0·39	1·75	1·95	4·92	9·01	2·94	0·58	0·03
Victoria Park	,,	68	0·03	1·60	4·28	1·22	6·21	13·34	3·15	0·67	0·05
Golden Lane	Dr. W. J. Howarth, M.O.H.	80	0·08	3·04	5·21	3·54	7·08	18·94	4·74	1·26	0·19
Malvern	Mr. W. Osborne Thorpe, Engineer U.D.C.	57	—	0·38	0·17	0·57	0·90	1·72	0·41	0·28	0·01
Manchester—											
Ancoats Hospital	Mr. J. Warrington, Secretary, Air Pollution Advisory Board.	71	0·11	3·65	9·40	1·82	7·83	22·81	4·33	1·09	0·08
Bowdon	,,	68	0·01	0·29	1·14	0·70	2·52	4·66	1·33	0·51	0·05
Cheadle	,,	53	0·06	0·95	2·53	1·03	2·04	6·61	1·35	0·60	0·05
Davyhulme	,,	60	0·01	0·86	4·05	1·03	4·29	10·24	2·36	0·78	0·10
Fallowfield	,,	57	0·04	1·12	4·97	0·71	3·63	10·47	2·46	0·39	0·04
Moss-side	,,	65	0·12	1·54	5·23	1·26	5·53	13·78	2·87	1·04	0·07
Philips Park	,,	62	0·06	2·96	6·75	2·13	6·95	18·85	3·63	1·69	0·04
Queen's Park	,,	68	0·07	1·51	6·52	1·36	7·19	16·65	3·77	1·29	0·04
School of Technology ...	,,	64	0·07	2·19	4·96	1·17	5·34	13·73	2·75	1·05	0·05
Whitefield...	,,	86	0·03	1·37	5·42	0·89	5·99	13·70	3·44	0·90	0·06
Newcastle-on-Tyne	Dr. H. Kerr, M.O.H.	65	0·09	3·25	5·72	2·47	5·06	16·59	2·86	0·64	0·18
Oldham	Dr. J. B. Wilkinson, M.O.H	105	0·44	9·57	17·40	3·78	9·68	40·90	4·21	1·34	0·16
Sheffield—											
Attercliffe Burial Ground	Prof. W. P. Wynne, The University.	77	0·19	3·20	7·07	2·30	6·26	19·02	2·66	1·94	0·10
Hillsborough Park	,,	75	0·11	1·48	4·43	1·50	4·21	11·73	1·90	0·70	0·04
Meersbrook Park	,,	85	0·08	1·34	3·38	1·50	4·08	10·38	2·53	0·80	0·05
Weston Park	,,	72	0·09	0·94	2·11	1·61	3·16	7·91	2·13	0·64	0·05
York...	Dr. E. M. Smith, M.O.H.	62	0·10	1·50	3·53	1·25	3·49	9·86	2·37	0·71	0·55
SCOTLAND—											
Coatbridge*	Mr. A. G. Dutch, Chief Sanitary Inspector.	—	—	—	—	—	—	—	—	—	—
Greenock	Mr. J. Devine, Sanitary Inspector.	209	0·12	3·53	6·38	3·23	5·58	18·86	3·31	0·90	0·24
Leith	Mr. Thomas Bishop, Sanitary Inspector.	36	0·07	0·92	3·07	2·02	2·75	8·83	1·34	0·32	0·11
Paisley	Mr. W. W. Kelso, Sanitary Inspector.	140	0·28	3·02	4·65	4·46	4·47	16·88	2·64	0·47	0·10
Stirling	,,	147	0·45	1·41	3·44	1·97	3·98	11·25	2·96	0·10	0·20

* Record lost.

Col. 4 includes all matter insoluble in water but soluble in CS_2. Col. 5 includes all combustible matter insoluble in water and in CS_2. Col. 6 includes all earthy matter, fuel, ash, &c. One metric ton per sq. kilometre is equivalent to: (*a*) Approx. 9 lb. per acre; (*b*) 2·56 English tons per sq. mile; (*c*) one gramme per sq. metre; (*d*) 1/1000 millimetre of rainfall (see Col. 3).

The analytical work involved in these returns was undertaken respectively by J. F. Liverseege, F.I.C., Birmingham; Harry Hurst, B.Sc., F.I.C., Bolton; F. Southerden, B.Sc., F.I.C., Exeter; A. R. Tankard, F.I.C., Kingston-upon-Hull; W. H. Roberts, M.Sc., F.I.C., Liverpool; S. A. Vasey, F.I.C., Director, THE LANCET Laboratory (London Meteorological Office collections); J. H. Coste, F.I.C. (Embankment Gardens, Finsbury Park, Ravenscourt Park, Southwark Park, Wandsworth Common, Victoria Park collections), London; F. L. Teed, D.Sc., Golden-lane, London, E.C.; C. C. Duncan, F.I.C., Malvern; E. Knecht, Ph.D., M.Sc., Ancoats Hospital, Bowdon, Cheadle, Davyhulme, Fallowfield, Moss-side, Philips Park, Queen's Park, School of Technology, Whitefield (Manchester collections); J. T. Dunn, D.Sc., Newcastle-on-Tyne; Samuel Urmson, Oldham; Professor W. P. Wynne, Attercliffe Burial Ground, Hillsborough Park, Meersbrook Park, Weston Park (Sheffield collections); S. H. Davies, M.Sc., York; Messrs. R. R. Tatlock and Thomson, Coatbridge; Messrs. J. W. Biggart, F.I.C., and McCowan, Greenock; A. Scott Dodd, B.Sc., F.I.C., and R. M. Clark, B.Sc., Leith, Stirling, and Paisley respectively. The correspondents referred to in col. 2 are for the most part public health authorities.

THE LANCET.

LONDON: SATURDAY, MAY 22, 1915.

The Report of Lord Bryce's Committee.

THE committee appointed by the Government in December to examine into the charges of outrage and cruelty which had been made against the soldiers of Germany from the very first days of the war made its report last week too late for notice in our columns.[1] The medical interest of the document is very great in several directions, while the composition of the committee gives particular force to its conclusions, for it was exceptionally fitted to discharge its task. No political element could afford any ground for the suggestion of bias in one direction or another. The name of its chairman, Lord BRYCE, was known and honoured throughout the world, in enemy countries as well as in those of neutrals and at home. The four King's Counsel among its members comprised men of such divergent aims and attainments as Sir FREDERICK POLLOCK and Sir EDWARD CLARKE, and the inclusion of Mr. H. A. L. FISHER and Mr. HAROLD COX showed that the necessity for judging present acts by the light of history had not been forgotten. The report of such a body will carry weight now and hereafter, and will be closely studied not only in the countries at war but in those which have remained interested and critical spectators of the struggle. And its particular value is that its revelations, appalling as they are, will serve to steady our emotions at a moment when national feeling is at fever heat and when exaggeration is apt to colour stories which pass from mouth to mouth, and when invention with but a slender foundation of fact often obtains currency more readily than plain truth. There have been exaggerations and flat lies in connexion with the war, and rumours upon many subjects have been proved false or have died for lack of corroboration. (We might cite the stories of Russian reinforcements from Archangel as an instance of what rumour can achieve when once a story is set in motion.) And in the matter of German outrages there have been misstatements. There are not in this country, as was at one time declared, thousands of young Belgian girls expecting to become mothers as the result of rape by the soldiers of the enemy, any more than there are thousands of English girls pregnant as the result of our own soldiers' licentiousness. But the sifting of the evidence with regard to German atrocities has produced a record of villainy which will reduce to their proper value the vapourings of those who regarded all stories of inhumanity in the foe as idle libels. The world now knows a good deal of the truth.

Such a report as that issued by Lord BRYCE'S committee dispels rumour and exaggeration, substituting facts horrifying enough in themselves to require no admixture of fiction to render them more terrible. Murder, rape, and robbery have been committed throughout the areas invaded by the enemy, and these crimes have not been sporadic manifestations of the awakening of brute passions in undisciplined soldiery inflamed by war and conquest, but have been in many instances the result of deliberately sanctioned terrorism, planned with a view to subjugating the countries attacked and those defending them. These crimes have been committed by the most rigorously and meticulously disciplined army that the world has ever seen, and their cruelty has been carried to an excess which the world has not felt since it has boasted itself civilised. This is the gravest part of the charge now proved against our enemy; that those in high authority inculcated the practice of barbarous outrages in soldiers whom they provided with ingeniously devised contrivances for spreading fire in buildings, as they have since armed them with even more ingenious equipment for carrying and releasing poisonous gases. This portion of the damning charge is proved beyond any room for doubt, not only by witnesses deposing to the speeches of German officers who justified their acts by alleging the orders of their superiors, but by documentary evidence of various kinds of unquestionable authenticity, convicting the accused by their own confession. It is not necessary to give extracts here from the evidence. The document has been read by many, and will shortly be familiar to all, as the Government proposes to issue it publicly at a nominal price. But we wish to insist on the manner in which the evidence has been collected and sifted by the committee, in order to show that nothing has been allowed to pass which could be characterised as dubious or incapable of proof. The committee itself admits in its report, which is unanimous on all points, that it "began the inquiry with doubts whether a positive result would be attained. But the further we went and the more evidence we examined so much the more was our scepticism reduced." In another passage dealing with this topic we are told: "The force of the evidence is cumulative. Its worth can be estimated only by perusing the testimony as a whole. The experienced lawyers who took the depositions tell us that they passed from the same stage of doubt into the same stage of conviction." That "shadow of reasonable doubt" with which we are familiar in our courts of criminal jurisdiction finds no place when we study the broad outlines of the report. Assassination, lust, and pillage have prevailed over many parts of Belgium on a scale unparalleled in any war between civilised nations, and no military necessity

[1] Alleged German Outrages: Report of Committee. 3d. Appendix, 2s. 1d. London: Messrs. Eyre and Spottiswoode, Limited; Messrs. Wyman and Sons.

can be alleged in defence or extenuation of the outrages thus committed.

There is one breach of those rules of civilised warfare that are sanctified by usage and rendered definite by signed convention to which special reference may appropriately be made in these columns. The committee found a difficulty, inherent to the circumstances of the act, in establishing the intention of firing upon hospitals, ambulances, and stretcherbearers, where the firing was conducted at long ranges. It therefore declines to declare that there is proof of this crime, merely pointing out that military observers believe that it took place, and that in the case of ambulances explicit evidence exists. Abuse of the Red Cross by the enemy was, however, found capable of more direct establishment. This abuse, according to witnesses, consisted of the opening of fire sometimes at close range with machine guns disguised in ambulances, and a case is described in which there is little room to doubt that a Red Cross motor-car was used to carry ammunition under the command of officers. It is observed that "unless all these statements are wilfully false, which the committee sees no reason to believe, these acts must have been deliberate, and it does not seem possible that a Red Cross car could be equipped with a machine gun by soldiers acting without orders." From the closing remark of this passage none will dissent who remembers that the German army conducts its operations under the strictest discipline applied to the minutest details. The abuse of the Red Cross is a crime of warfare the stain of which will never be effaced.

Deep and burning indignation will be aroused in those who read the story told in dispassionate language by the committee. The acts recounted have inflamed the anger of those actually engaged in fighting to a degree of bitterness of which they would once have believed themselves incapable. These, however, in many cases have been eye-witnesses of that which they are not likely to forget, and they have the perpetrators before them. For us at home there remains the duty to possess our souls in patience and to contribute in every way in our power to the bringing of the war to that conclusion which will ensure the meting out of justice to the wrongdoers and the establishment of lasting peace. We shall in no way aid in the attainment of that end by indulging in frothy ebullitions of rage, in rousing the passion for mischief in persons naturally unruly and excitable, or in calling for "reprisals" against those who have neither done nor ordered the acts which are the cause of our anger. We can express no sympathy with those who recently have wrecked shops in London and elsewhere, and pursued aliens believed to be Germans in the streets. Deeds of this kind, carried out principally by women and boys, can have no effect upon the course of the war, and the men taking part in them would do better by exhibiting their fighting qualities, if they have any, in the ranks of the army. On the desirability of interning Germans or of preventing by law the carrying on of their businesses we offer no opinion. It is outside the province of THE LANCET to do so. Rioting against them is a different matter, and we protest against public exhibitions of excitement as mentally and morally demoralising to those indulging in them, and as likely to lose us the reputation for sober sense and steadfastness upon which as a nation we have long prided ourselves. It is by their enduring steadfastness that our soldiers have earned undying fame during months of trench warfare. It is for us to emulate them in their dogged determination, and to support them by every means in our power. Attention must not be diverted to anything that is irrelevant to the great matter that we have in hand. Riots, shouting, and displays of temper will help us not at all, nor will the discussion of plans for the punishment of those responsible for the crimes revealed in the report of Lord BRYCE'S Committee. Our aim and that of our Allies is to prevent the recurrence in the world's history of the horrors amidst which we now move.

The Medical Research Committee and the War.

AN interim report has been issued on the special work in connexion with the war which is being undertaken by the National Health Insurance Medical Research Committee. The report is addressed to Mr. MONTAGU, chairman of the National Health Insurance Joint Committee, and gives a very interesting résumé of the special activities of the Research Committee which have had their outcome in the war, and which, it should be understood, have been additional to previously organised schemes of research. It was foretold that the value to the country of the Research Committee, with its regular income and strong scientific staff, would surely prove to be high; in wholly unlooked-for circumstances the surmise has proved to be correct.

There are two main directions in which the Medical Research Committee are labouring as a result of having placed their services at the disposal of the War Office, and both are sure to be of great utility to the country immediately and to pathologists and statisticians later. The committee are undertaking, first, the compilation and analysis of the medical statistics of the sick and wounded from the military forces; and, second, the assisting of the military hospitals in this country to carry on the pathological side of their work efficiently. The whole resources of the statistical department of the Committee are now available for the purposes of the war. The compilation of the statistics of our sick and wounded is under the direction of Dr. JOHN BROWNLEE, who, with Colonel H. P. W. BARROW, R.A.M.C., and Colonel W. N. BARRON, R.A.M.C., it may be remembered, has become responsible for the statistical section of the official

medical history of the war. A proper statistical investigation dealing with the sick and wounded, even among the British soldiers only, in this gigantic struggle will furnish lessons for the future of the highest importance. The circumstances of the war have been and are in many respects unprecedented, and we may receive specially significant information from the statistical analysis of the casualty and sickness lists; apart from which our previous wars have been so badly chronicled from the medical point of view that much general instruction to be gathered from the figures will be new to us. Similarly the assistance which the Medical Research Committee have been able to offer to military hospitals in respect of their pathological departments has not only been of great practical service in the care of our sick and wounded, but is likely to have far-reaching results. In some of the places where medical officers, having commissions, have been appointed to pathological posts, the Medical Research Committee have made grants for the supply of apparatus such as would not necessarily be found in the ordinary equipment of a hospital; to other military hospitals grants have been made for the appointment of part-time pathologists, not having commissions, whose work can in some cases be carried out in an adjacent laboratory belonging to a university or a municipal authority. In some cases the Medical Research Committee have equipped laboratories within military hospitals for the purpose of routine work or special inquiry. The work here done in collaboration with the Royal Army Medical Corps, whose scientific status is now so good, and whose achievements throughout the war have been recognised as a feature in our military successes, is bound to throw light upon many difficult problems in preventive medicine and therapeutics.

Among the special inquiries which the Medical Research Committee are employed upon may be mentioned the study of epidemic cerebro-spinal meningitis, which is being undertaken under the direction of Dr. M. H. GORDON, who has received a commission as a major in the Royal Army Medical Corps, and who has a central laboratory at the Army Medical College, Millbank, where the Committee provide him with two assistants. Research in the same direction in many provincial laboratories is also being subsidised. The services of the bacteriological department of the Committee, which is under the direction of Sir ALMROTH WRIGHT, have been applied to purposes of military significance, while it is well known that at the outbreak of the war Sir ALMROTH WRIGHT and his staff gave the whole of their time to the preparation of vaccines for the army in the inoculation department of St. Mary's Hospital. We publish elsewhere in full the interim report of the Medical Research Committee, which tells its own story of multifarious industry, and feel sure that no medical man can read it without seeing how fitting an adjunct to the labours of the Royal Army Medical Corps the Committee are proving themselves to be.

Annotations.

"Ne quid nimis."

THE LATE MADAME DEPAGE.

IT is felt that the tragic death of Madame Depage, to which reference was made in our columns last week, should not be allowed to pass without some demonstration of the admiration that is felt for her character and of sorrow for her tragic fate while engaged on an errand of mercy. Madame Depage had many friends who were deeply attached to her both here and in the United States, and it is thought that they might like to give expression to their feelings by subscribing to a small bronze memorial to be placed in the Depage Hospital at Brussels after the war. The memorial might be executed by some of the distressed Belgian art metal-workers who are now in exile. Subscriptions will be gladly received by Mr. Robert Jones, 11, Nelson-street, Liverpool; by Mr. D'Arcy Power, 10A, Chandos-street, Cavendish-square, London; or by Professor Sinclair White, Ranmoor, Sheffield.

THE TREATMENT OF THE ATONIC WOUNDS OF WAR.

AT a recent meeting of the Société Médicale des Hôpitaux of Paris M. François Debat described a simple and effective method of treating the wounds of war which resist ordinary methods and remain atonic or even degenerate into ulcers. Our Paris correspondent has already referred briefly to the treatment as being satisfactory. The wounds in which it was employed were usually not deep. At first they showed nothing particular and then the following obstinate condition gradually developed. The wound became violaceous and its surface smooth or mammillated with soft granulations, the borders punched out or nodular. There was an abundant serous or purulent discharge. Sometimes a thin violaceous cicatrix formed at certain points with little power of resistance. In other cases the ulcer increased in depth and extent. This complication usually occurred in soldiers who were debilitated, fatigued, or addicted to alcohol, but sometimes was observed in young, robust, and sober men without specific or tuberculous history. Atonic wounds showed a predilection for certain situations—the backs of the hands and feet, the inner surface of the arm, and the antero-internal surface of varicose legs. They were never observed on the face or the plantar or palmar regions. Ordinary treatment was of no use. Antiseptics only irritated and destroyed the tissues. Moist dressings macerated the surrounding integument and provoked dermatitis and folliculitis. Dry dressings adhered to the wound and formed a crust under which suppuration spread downwards. In many cases, after two or three months' treatment, the condition was worse than ever. The localisation of the wounds gave the key to their pathogenesis. As stated, palmar and plantar wounds healed well. Three reasons may be given for this. 1. The thickness of the integuments, particularly of the generating Malpighian layer. 2. The activity of the circulation. 3. The frequency of contraction of the subjacent muscles. In the regions where the atonic wounds occur there are, on the contrary, a thin epidermis, a circulation of little activity, and

feeble and infrequent muscular contractions, as the wounded man tends to immobilise the affected limb. The treatment follows. Irritation of tissues with little power of resistance must be avoided. Their activity must be increased by movements and massage. M. Debat eliminates all antiseptics. He applies a light dressing of gauze soaked in saline solution of the strength of 9 per 1000 covered with cotton wool. To prevent maceration he exposes the wound every day to the air and increases the duration of the exposure as the discharge diminishes. The time of exposure is two hours on the first day, and this is increased by an hour daily. When the discharge ceases the saline solution is replaced by a thick paste of oxide of zinc or innotyol. Every hour the muscles subjacent to the wound are moved for five minutes, while the limb is maintained in an elevated position. Every day effleurage of the limb with pinching of the skin around the wound is performed. If the wound is in the lower limb the patient should remain in bed; if in the upper limb he should wear a sling. This simple method had an immediate effect. The following is an example. On Oct. 28th, 1914, a robust soldier, aged 21 years, addicted to alcohol, sustained a superficial wound on the antero-internal surface of the arm in consequence of a shell explosion. The wound was painted with iodine and moist dressings were applied. After a fortnight the wound suppurated abundantly and tended to enlarge. Peroxide of hydrogen, nitrate of silver, iodine, permanganate of potassium, carron oil, and dry dressings were tried in turn. After two months there was no improvement. On Jan. 8th, 1915, the treatment described above was adopted. The movements consisted in pronation, supination, shutting the hand, and flexion of the forearm. After three days the wound was red instead of violaceous, and was granulating, particularly at the borders and lower end. On Jan. 26th healing was complete.

HOW PLAGUE MAY BE CARRIED FROM PLACE TO PLACE.

IT is now generally recognised that plague may be conveyed from port to port or from one continent to another by infected rats which may travel on board vessels, concealed like stowaways among the cargo. Modern preventive measures, therefore, require a careful examination of sacks, crates, boxes, or other packages before they are carried on board ships at the port of departure and again before landing at the place of destination to discover if any rats are concealed in them. Our American contemporary, *Public Health Reports* of March 26th, calls attention to what appears to be an illustrative example of this possible danger. Recently at Seattle, a seaport town situated on Puget Sound, in the State of Washington, on the Pacific coast, a large box of plants arrived from Japan, and on being opened by the State horticulturist a rat was discovered concealed in the soil at the bottom of the box. The animal was at once killed with a stick and the body was handed over to the medical officer of the Public Health Service stationed at Seattle for examination, with the result that it was found to have been suffering from a form of plague. There were two possibilities—namely, that either the rat had entered the box at Yokohama before it was carried on board the ship, or that it had managed to enter the package at Seattle when it was opened by the official appraiser for customs purposes. The experts who inquired into the case came to the conclusion that the affected rat must have entered the box at Yokohama and travelled in it to Seattle. For some time the local rats at Yokohama are known to have been infected by plague, but on the other hand it is equally true that since 1913 plague-infected rats have been found from time to time at Seattle up to the beginning of the present year along the water front. After consideration of the facts we are disposed to agree with the view taken by the Seattle experts that the infected rat was conveyed from Yokohama in the box of plants, and that it was extremely unlikely that it could have managed to find its way into the package during the short examination made by the official appraiser at Seattle. If this view be correct the importance of the case can hardly be over-estimated, for if the box had been consigned to some inland town in the United States where the public health officials were not on the alert, it is more than probable that the infected rat would have escaped to mingle with the local rats, and might have established a fresh focus of plague infection. We understand that the medical officers of the United States Public Health Service have now instituted a systematic examination of all packages coming from infected ports in order to ascertain the relative frequency of such occurrences, so that suitable steps may be taken at Seattle and other ports to prevent any danger that might arise from this cause in future.

THE ASSAY AND PHYSIOLOGICAL VALUE OF MEAT EXTRACTS.

AN interesting discussion on the methods adopted in the estimation of the nitrogenous constituents of extracts derived from albuminous substances, such as meat extracts and similar products, with special reference to the physiological significance of the results, was opened by the chairman, Mr. A. C. Chapman, at a joint meeting of the Society of Public Analysts and other Analytical Chemists and the Bio-chemical Society, held at the Chemical Society's rooms on May 5th. The chairman drew a sketch of the analytical methods in vogue which aimed at separating and estimating such products as gelatine, gelatin-peptone, syntonin, albumoses and peptones, creatin and other meat bases. Dr. F. Gowland Hopkins, in the course of some interesting remarks on the work that was being done on the subject at Cambridge, said—

The animal body dealt not with the intact proteins or even with the albumoses and peptones, but with the free amino-acids which were the individual constituents of the protein molecule. The actual way in which the different amino-acids were grouped in the protein molecule was not of much consequence, but the effects produced by the individual amino-acids were of extreme importance. He described physiological experiments which he had made showing that when rats were given a diet including a complete amino-acid mixture corresponding to the proteins of an ordinary diet the growth was almost exactly normal, while when arginine and histidine were removed from the amino-acid mixture the growth ceased immediately, being resumed when arginine and histidine were again added. The removal of tryptophane from the amino-acid mixture also produced similar results, and Osborn and Mendel in America had shown cystine to be similarly essential. It did not follow that this was the case with every amino-acid, and the question as to which of the amino-acids were essential in that way offered a large field for investigation. Recent work at Cambridge indicated that certain acids could be removed from the amino-acid mixture without affecting the

rate of growth. With regard to the minimum quantity of any amino-acid required for nutrition, experiment had shown that, in the case of rats, at any rate, the critical minimum for arginine lay somewhere between 2½ and 1 per cent.

It appeared that the functions of the individual amino-acids were not confined merely to flesh formation. The effect of feeding animals on zein, which was deficient in both tryptophane and lysine, was not only to restrict growth but also to shorten the survival, and the same was observed with zein plus lysine; but with zein plus tryptophane the animal was able to maintain its weight for a long period, although it did not grow. It was clear from this that trytophane exercised some other function than the mere supply of material for growth.

Mr. A. R. Tankard thought that it was important in some cases to estimate separately the meat fibre and coagulable albuminoids, with a view to the detection of extraneous matters which were sometimes added. For some time past he had adopted the method of centrifugalising the bromine protein precipitate, mixing the residue with water, and centrifugalising again. He made a practice of separating the albumoses and peptones, but agreed that in most ordinary cases this was of little value. There were, however, on the market certain so-called "fortified" meat extracts which contained albumoses and peptones in very much larger proportion than occurred in ordinary meat extracts.

Dr. Percival Hartley described his experience of Van Slyk's method of determining amino-nitrogen, which was based on the fact that when protein and protein degradation products were treated with nitrous acid nitrogen gas was given off. The results of complete analysis of various proteins showed that the constitution of serum albumin was quite different to that of the globulins, the former containing a much larger proportion of lysine and of cystine than the latter. Another interesting result was that the globulins exhibited no difference in chemical composition—eu-globulin and pseudo-globulin apparently being closely related. Another point brought out was that the free amino nitrogen of native proteins appeared to be approximately one-half of the lysine content which, if substantiated, would appear to afford a simple method of estimating lysine without hydrolysis of the protein. Furthermore, the proportion of free amino nitrogen indicated to what extent the protein had been digested or peptonised.

On the whole the discussion did not throw much fresh light upon the actual value of meat extracts as nutrients. The general impression was derived that there might be activators present in such extracts which were of value in encouraging the assimilation of actual food substances, and so the classical conclusion that meat extracts served as adjuvants or stimulants rather than direct nutritives would appear still to hold the field.

THE REGISTRATION OF PLUMBERS.

THE protracted efforts of the Worshipful Company of Plumbers, no less on behalf of the public health than for the honour of the trade they represent, are slowly bearing fruit. Recently the corporation waterworks of the county borough of St. Helens issued a regulation to the effect that for the protection of the water-supply, and in the interests of the consumers, it is essential that all plumbing work should be well and soundly executed; and in order to ensure the employment of none but good workmen a register of plumbers will be kept in the office of the water department of the corporation, on which may be enrolled any plumber carrying on business within the limits of the water-supply who shall satisfy the water committee and the engineer in all respects as to his competency, and who shall sign an agreement to conform to and comply with the by-laws relating to water-supply. No other person will be recognised as an authorised employee. Still more recently, on April 24th, the annual general meeting of the Incorporated Joint Committee on Water Regulations was held at the London Guildhall, at which was passed a resolution approving the principle of "raising the qualification of plumbers employed on water fittings, and calling on water authorities to recognise and require as far as possible the employment of plumbers qualified and responsible for the efficiency of their work by having passed a theoretical and practical examination, such as that conducted by the General Council for the National Registration of Plumbers, which is constituted of representatives of master plumbers, operative plumbers, and authorities connected with public health." It was further recommended that where there was not a sufficient supply of plumbers possessing the necessary qualification the water authorities should obtain information from the plumbers of the locality as to the reason for the apparent insufficiency and the possibility of increasing the number of properly qualified men. It is hoped that regulations such as the above will influence all plumbers to bestir themselves with a view to obtaining some certificate as to their competency. Hitherto the majority of plumbers, we regret to say, have abstained from registration, finding themselves able to obtain employment without payment of the annual 5s. fee necessary for registration. While this narrow attitude continues the public are left without any guarantee of the workman's ability to execute properly the work which he undertakes, and bad results to the public health follow.

THE PHYSIOLOGICAL SIGNIFICANCE OF REFLEX PHENOMENA IN SPASTIC PARALYSIS OF THE LOWER LIMBS.

THE elaborate observations reported by Dr. R. Walshe in *Brain* (1914, Vol. XXXVII., p. 269) is of much more than passing interest. They are of high clinical and diagnostic importance; they instance, too, a striking example of the value to clinical medicine which apparently purely physiological data can afford. Professor C. S. Sherrington's researches upon the "spinal" and the "decerebrate" animal form the starting-point. It has been shown by him that there are two separable systems of motor innervation which control two sets of musculature. One system exhibits those transient phases of heightened reaction which constitute reflex movements, well exemplified in the protective reflex of flexion following a nocuous stimulus to the sole of the foot; the other maintains that steady tonic response which supplies the muscular tension necessary to attitude, and which is mainly evidenced in the extensor group of muscles. These two systems, moreover, coöperate, exerting influences complemental to each other. Does this system of innervation apply in man? Dr. Walshe brings forward what appears to us to be convincing evidence that it does. He recognises, with Babinski, two forms of spastic paraplegia: one "in flexion" when the limb or limbs become flexed, and the other "in extension" with the limb extended. In paraplegia with flexion one has muscular rigidity in flexion, profound loss of voluntary power, diminished or absent tendon-jerks, and exaggeration of the defence reflexes and extensor response (the Babinski sign, which Dr. Walshe argues is a definite part of the flexion reflex). Such a form of paraplegia is met with especially when there is local and extensive cord damage, when, it is suggested, not only the pyramidal tract but the lateral columns also are affected. In a pure pyramidal lesion, such, for

example, as hemiplegia, there is, on the contrary, always paraplegia in extension, not in flexion. Now, flexion paraplegia, on account of the loss of knee-jerk, which represents the degree of extensor tonus, indicates interruption of those motor channels concerning such tonus, and since this interruption never occurs in pure pyramidal lesions it is argued that such channels pursue an extra-pyramidal course. Flexion paraplegia in fact corresponds to Sherrington's "spinal" animal, in which the cord is definitely interrupted. Extension paraplegia presents a different condition. There is here the exaggerated knee-jerk; there is, that is to say, evidence of heightened extensor tonus, and such a condition corresponds to Sherrington's decerebrate rigidity. Now, the same condition follows, experimentally, section of the brain-stem above the level of the pons, but not so far forwards as the forebrain. The centre controlling this extensor reflex lies probably near the paracerebellar nuclei. In animals, therefore, it is suggested that of the two reflex centres controlling flexor responses and extension tonus respectively that subserving flexion rests in the cord, and that preserving tonus in the extensors rests in the brain at the site suggested. A pure spinal lesion generally causes flexion paraplegia, for here the tracts for extensor tonus are usually involved as well as the flexion "spinal" centre. A cortical lesion, such as hemiplegia, representing a pure pyramidal lesion, always causes extension paraplegia, for here the paths for extensor tonus are not interfered with; the tonus is, indeed, heightened. This increased tonus may modify the character of the reflexes of its antagonistic muscles, the flexors, where the crossed extensor response is only obtained in such conditions. Disturbance of sensation appears to influence hardly appreciably the form of these reflexes. The investigations have been followed in some cases by means of graphic records of the tendon jerks. The analogy between events as seen in the experimental animal and those furnished by pathological conditions in man is thus of striking significance, and the power of diagnosis is materially aided by this "lift up" from the physiological laboratory.

INSANITY CLAIMED TO BE DUE TO MINERS' NYSTAGMUS.

THE causation of insanity is a wide subject, which it would be impracticable to endeavour to reduce to fixed or specific limits by the definite inclusion of certain factors and the rigid exclusion of others. At the same time, if attention is devoted to what may appear the most prominent incident in the previous history of a case, and a proportioned estimate of the action of less obvious but at least equally potent factors is not made, there is grave risk of misconception and of erroneous judgment. Nothing is more clear in discussing the incidence of insanity than the fact that the soil from which mental disease springs is prepared by the inheritance of the individual, and the task of assigning relative importance to the various elements that must be regarded in any particular case of insanity is one demanding careful and mature consideration. In a recent case under the Workmen's Compensation Act nystagmus was claimed to be the cause of the insanity of the individual whose case was under adjudication. The Navigation Coal Company was sued by the widow of Walter Jones, a coal miner, for compensation in respect of the death of her husband as being due to nystagmus contracted when in the company's employment. The facts are briefly as follows. The deceased contracted miners' nystagmus and received compensation for a time. He subsequently took the position of steward to the Merthyr Vale Hibernian Club, and performed his duties to the satisfaction of the club. Later, however, he became obsessed with the idea that he was not doing his work satisfactorily, and he resigned. The club persuaded him to withdraw his resignation, but he resigned again, and this time his resignation was accepted. Before his notice expired he committed suicide on the railway, the coroner's jury returning a verdict of "Temporary insanity." In order to establish her claim for compensation the widow had to show that her husband's death was caused by nystagmus, which it will be remembered, is a disease included in Schedule III. of the Act of 1906. Evidence was called to establish the claim that his depression and suicide were the consequences of the disease which he had contracted. Judge Bryn Roberts, however, regarded the chain of causation as insufficiently demonstrated, and the widow's application was refused. Time and custom have sanctioned the division of etiological factors into "predisposing" and "exciting," and no physician will emphasise one at the expense of the other, for the operation of each is of significance. Of the predisposing factors in the case under consideration no information seems to be forthcoming, but assuredly they cannot be ignored, and whether predisposing factors are matters for compensation is too debatable a subject to be decided by mere *ex cathedrâ* statements. On the other hand, it can be understood that, where the soil is already prepared, the existence of such a physical defect as miners' nystagmus might become a veritable obsession in a particular case, and originate a train of morbid mental processes which might end in the commission of suicide. In a sense, therefore, it can be regarded as an exciting cause. Whether it was the only exciting cause in the present case is quite another matter, and, as already remarked, the part played by predisposing factors may be of equal, if not greater, importance. To assign compensation by singling out one only of a number of pre-existing morbid agencies at the expense of the others would be unjustifiable from the medical point of view, and equally unwise. The judge's decision that the chain of causation in this particular case was incomplete is one which we think expert opinion in regard to the causation of insanity will uphold.

THE VALUE OF ATOPHAN IN GOUT.

SOME observations on the use of this drug, which is a diphenyl-chinolin-tetracarbonic acid, have been recently published by Dr. P. Biffis in *Il Policlinico*. He administered it to five healthy and two gouty subjects in half-gramme doses two to eight times daily, the latter being on a rigorous purin-free diet. In the healthy subjects there was a definite increase in the uric acid eliminated by the urine, which generally reached its maximum in the first six hours, after which it diminished even though the dose was trebled or quadrupled. The increase was not in proportion to the amount of drug given after the first day, even if the experiment were made in the same individual at different times, and when the administration was suspended there was a diminution, sometimes very marked, in the quantity

of eliminated uric acid which continued for two to three days. There was no change in the quantity of urine passed, but it became slightly turbid and high coloured and gave a sediment of urates and uric acid, and a trace of albumin was frequently observed. In large doses it was not well tolerated, causing pyrosis, which was not relieved even by full doses of bicarbonate of soda; this digestive disturbance was not nearly so frequent when novatophan was substituted for atophan. In the two gouty cases the drug was not given in the acute stages, and, taken in conjunction with other observations previously made by him, the author came to the conclusion that the drug was much less active with regard to the elimination of uric acid in gouty subjects than in healthy. It had hardly any action in doses of 1–2 grammes, and this may be why some observers have reported unfavourably of the drug. The inertia can perhaps be explained by the fact that atophan acts rather upon the elimination of exogenous uric acid and is therefore less active in gouty subjects on a diet free from uricogenous substances. With regard to the quantity of urine, the tolerance, and the albuminuria, the same phenomena were observed as in the healthy subjects. The action of atophan is little understood, but it probably consists in the decomposition of a larger quantity of nucleoproteids or in some alteration in those fermentative processes which regulate the oxidation of the purin bases.

PAINLESS LABOUR.

IN a recent issue of *La Clinica Ostetrica* Dr. E. Curti gives his experiences of 25 cases of labour in which he used a modification of scopolamine narcosis. Instead of the morphine with which this drug is usually associated and which has been blamed for some of the untoward results following its use, he had the idea of combining it with narcophine, a substance which is a synthetic double salt of morphine and narcotine having the chemical formula $C_7H_4O_7$, $C_{17}H_{19}NO_3$, $C_{22}H_{23}NO_7 + 4H_2O$. This substance is a white powder, soluble in water, and possesses the narcotic efficacy of opium without its toxicity. Its action is slower but more lasting than that of morphine, while its use is not followed by nausea. The technique employed by Dr. Curti was to give half-hourly injections commencing with scopolamine gm. 0·00045 (about 1/150th grain), with narcophine gm. 0·03 (about ½ grain). The second dose consists of scopolamine 1/200th grain alone, the third of the same quantity with the above dose of narcophine, the fourth of scopolamine alone, and so on alternately. The first injection was given as soon as the cervix was nearly fully dilated. Dr. Curti never found that the injections were followed by either nausea or vomiting, headache or giddiness. The patients felt well and were not fatigued, neither were there any hæmorrhages or other complications in either mother or child. The narcosis obtained is not complete, the mental faculties not being suppressed, but sensation is blunted and it is possible to administer food and medicine. Labour was never retarded and instrumental delivery, when it occurred, would have been necessary even without this narcosis, which is a great boon to a practitioner when single-handed. The duration of the narcosis after delivery varied, and depended partly on the number of injections and partly on the amount of blood lost during labour. Replying to the query whether the narcosis is due to the scopolamine or the narcophine, Dr. Curti's experience is that narcophine alone causes drowsiness but that large doses are required to overcome the labour pains, and with such doses probably uterine contractions would be diminished in intensity. The combination, however, with scopolamine enables smaller doses of narcophine to be used and produces sleep of short duration, together with almost complete cessation of the pain and abolition of full consciousness of what is taking place.

HOSPITALS AND RATES.

THERE is no encouragement to hospital governors to enlarge or even modernise their institutions if the case of the Royal West Sussex Hospital at Chichester can be taken as a test. Although no extra accommodation has been provided in bringing the institution thoroughly up to date, the local assessment committee has so increased the ratable value that the governors are called upon to pay annually on account of rates £80 more than hitherto. There may be strong arguments in favour of the increased assessment, but it seems unreasonable treatment of an institution which is doing thoroughly good work among the sick poor and has readily opened its doors for the reception and treatment of our wounded soldiers. The greater the work of the hospitals generally the less should be the taxes upon them: this would seem to be the more equitable way of regarding the position. Their whole purpose and tendency is to save expense to the community, and what is perhaps more important to improve the race. A very strong point against the increased assessment is that comparing the accounts of the institution at the Sussex cathedral city with hospitals in other comparable towns in no case is it found that such a heavy sum is being paid in rates in proportion to the number of beds. For example, the Royal Sussex County Hospital at Brighton, with nearly 200 beds, is assessed at only £104; the Royal West Sussex Hospital at Chichester, with 60 beds, £280; while the Portsmouth Hospital is not assessed at all, but *receives* £250 annually from the corporation. Further, two-thirds of the income of the Chichester institution are subscribed by those living outside the city borders; of an annual expenditure of £4661, no less than £3496 are spent in the city itself; and of the £16,000 raised to pay for the reconstruction the city subscribed £325, which sum included the bishop's subscription of £100. The complaint of the governors can well be understood, and in the event of relief not being granted there seem to be ample grounds upon which a friendly action might be cited.

THE next session of the General Medical Council will begin on Tuesday, June 1st, when the President, Sir Donald MacAlister, will take the chair at 2 P.M.

THE library and offices of the Royal Society of Medicine will be closed for the Whitsuntide holidays from Saturday, May 22nd, to Tuesday, May 25th, both days inclusive.

Mr. J. B. Lawford, we understand, will offer himself again as a candidate for the Council of the Royal College of Surgeons of England, by the desire of his colleagues, as a representative of ophthalmology.

THE *London Gazette* announces that the King has sanctioned the appointment of the King of the Belgians as an Honorary Knight of Justice and of the Queen of the Belgians as an Honorary Lady of Justice of the Order of St. John of Jerusalem in England, and also the promotion of Adeline Duchess of Bedford from a Lady of Grace to a Lady of Justice of the Order.

Lieutenant-Colonel Hugh Jones Roberts, T.D., of Llywenarth, Penygroes, Carnarvonshire, has been appointed a Deputy Lieutenant of the County of Carnarvon.

NOTES FROM INDIA.

(FROM OUR OWN CORRESPONDENTS.)

The Military Medical Students' Strike at Lahore.

SOME time last year the military students of the Lahore Medical School complained that the uniform worn was unsuitable. This complaint was endorsed by the Principal, considered by the Military Department at Army Headquarters, and certain alterations sanctioned; but owing to the demands of the war the materials necessary to carry them out could not be supplied. The students were also dissatisfied about the rates of scholarship allowances in these times of scarcity. During the visit to the school of Sir Pardey Lukis, the Director-General of the Indian Medical Service, on Feb. 20th, the Principal drew his attention to this matter, and Sir Pardey Lukis gave the representation sympathetic consideration; but on Feb. 22nd the second, third, and fourth year military students decided at a meeting to appear in plain clothes instead of uniform at the classes, contrary to the standing orders. Next day a body of these students were seen by the Principal leaving the hostel in mufti for their classes. They were ordered to appear in uniform before him at 9 A.M., and on doing so were given extra drills for their breach of discipline. The students went back to their boarding house, absented themselves from the classes, and subsequently held a meeting, at which they decided to go on strike. A part of the duty of these military students was the care in hospital of the wounded sepoy patients from the front, and they were also responsible for the unloading of the batches of wounded sepoys as they arrived at the hospital, so that they left the wounded soldiers unattended to, and but for the college students and the civil students of the school, who volunteered for the extra duty, not only must these patients have remained entirely neglected, but it would have been impossible to receive any more. On Feb. 23rd the Principal called on the students for an explanation of their absence from classes. The students stood silent, and they were then asked to take their bedding and leave the hostel for the night. They were told that the matter had been reported to the Director-General of the Indian Medical Service, and that they must await his orders before returning to their classes. They themselves wired to the Director-General and were ordered by him to return to duty, and to submit their grievances through the proper channel. The numbers concerned up to this time were 75 out of 117 military students; the remainder of the 352 students in the school had taken no part in the strike. On Feb. 24th 28 out of the 33 first-year military students joined the strikers, making 103 in all. On Feb. 27th the students on strike were informed by the Principal that the names of all the military medical students who did not return to their classes before 12 noon on March 3rd would be struck off the school rolls, that their scholarships in hand would be forfeited, and that all bondholders would be asked to make good their sureties. Practically none of the students returned by March 3rd, and the orders mentioned above were all carried into effect. In the meantime the Director-General had asked Colonel C. J. Bamber, Inspector-General of Civil Hospitals, to conduct an inquiry into the causes of the strike. After consideration of Colonel Bamber's report the Director-General issued orders that the students must return to duty unconditionally and submit to whatever punishment the Principal might consider it his duty to recommend, otherwise the orders already issued by the Principal, directing the removal of their names from the school rolls for grave misconduct, must hold good and their sureties would be called upon to discharge their bonds and pay up the amounts due. In compliance with these orders 13 students applied for readmission and were again taken into the military class. The remaining 90 remained out on strike. The Principal then asked permission from the Director-General, I.M.S., to readmit suitable students who might even then apply, and under the orders of the Director-General March 27th was fixed as the latest date for receiving such applications for readmission. As none of the remaining 90 students availed themselves of this further period of grace offered to them by the Director-General they have ceased to have much chance of gaining readmission to the Lahore Medical School. The students apparently contend that they have never been on strike, but have always been ready to return to duty if they were taken back unconditionally and a consideration of their grievances promised. These contentions indicate a fundamental ignorance of the proper relation between pupil and an instructor, and of the requirements of military discipline, to which these students are subject. What else but a strike is persistent refusal to attend classes and carry out allotted duties? So long as the idea persists that in case of a difference of opinion between a professor and his students it is the right of the student to indicate terms to his instructor, such regrettable incidents as this strike are bound to recur.

Town Planning and Sanitation in Bombay.

Professor Geddes, lecturing in connexion with the town-planning exhibition, discussed in some detail the report of the recent Bombay Development Commission. The housing of the people in Bombay, he said, merited the most urgent consideration of the city, and he pointed out the inadequacy of the present rate of progress in regard alike to the decrease of the death-rate and increase of the population. A strenuous and organised civil endeavour was the prime desideratum of the town planning of Bombay. He characterised the planning of *chawls* of the present common type as warehousing the people and not housing them, and insisted that it was not impossible to make a large provision of respectable homes with sufficient playgrounds and not yet exceeding two storeys. Professor Geddes addressed an interested audience, for the public health of Bombay is much discussed just now.

The Bombay Sanitary Institute, which has been established under the auspices of the Bombay Sanitary Association, was recently opened by Lady Willingdon, the wife of the Governor of Bombay, when Dr. J. A. Turner (the medical officer of health of Bombay and honorary secretary of the League) and Lord Willingdon spoke of the establishment of the institute as a step forward in the sanitary education of the city. The Governor congratulated the municipality on what had been done in recent years, and assured them that Government were anxious to assist in every way possible. He thought that owners of property and large employers of labour had great responsibilities, and nothing would give him more satisfaction than to be able to see at the end of his term of office that something really substantial and practical had been done for the poor dwellers in the slums of the city.

Appointments.

Captain F. H. M. Chapman, R.A.M.C., to hold civil medical charge of Rurki, in addition to his military duties, vice Major E. H. Condon, R.A.M.C. Major G. A. Jolly, I.M.S., officiating civil surgeon, Gonda, to hold visiting medical charge of the Bahraich district, with effect from Dec. 21st. Major T. Hunter, I.M.S., civil surgeon, from Muradabad to Naini Tal. Dr. H. A. Macleod, civil surgeon, from Fatehgarh to Muradabad. Lieutenant P. S. Mills, I.S.M.D., officiating civil surgeon, from Mainpuri to Fatehgarh.

April 20th.

BRISTOL AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS)

University of Bristol: Temporary Residential College.

THE University of Bristol, like most of the modern universities, has been anxiously concerned since its foundation with the question of residential accommodation for its students. Early in its history it received an important benefaction for the accommodation of women students in the shape of Clifton Hill House, to which the adjoining Callander House has since been added. The last 12 months has seen the purchase of the Imperial Hotel and of a large property on Richmond Hill, Clifton, for conversion into halls of residence for men and women training students. The possibility of founding also a residential college near the University for men students generally has engaged the attention of an influential committee, and some progress has been made. The University has taken two houses in Belgrave-road, next to St. Mary's Church, Tyndall's Park, for the purpose of a temporary college. These houses are being renovated and decorated, and will be opened in good time for next term. When the arrangements are complete the temporary college will start with accommodation for 29 students, five in single study bedrooms and 24 in double study bedrooms. It will include also a refectory, a common room, quarters for a warden, and housekeeper's and servants' rooms, as well as bathrooms and offices. There are good-sized gardens at the back of the two houses which may be converted into tennis courts. The new temporary college is situated in a good residential part of the city; it stands high, and is within a few minutes of the University buildings. It is expected that the alterations will be completed in a few weeks' time, when the building will be open for inspection by present and intending students and their parents. The terms for board and residence have not yet been determined, but they will be similar to those charged in the residential colleges of other provincial universities.

Captain Ernest William Hey Groves, R.A.M.C., B.Sc., M.S., M.D.Lond., F.R.C.S.Eng., surgeon to the Bristol General Hospital, has left for the front on his appointment as operating surgeon to the new No. 21 Mobile Base Hospital.

The Late Lieut. Henry Wyndham Goodden, R.A.M.C.

Much regret was felt in Bristol at the news of the death of Lieutenant H. W. Goodden, who has recently been killed in action near Ypres. The deceased was the elder son of Mr. W. C. Goodden, who formerly practised for many years as a surgeon in Bristol. He was educated at Clifton College, and received his medical education at Bristol; he also studied at Paris and Vienna. He graduated M.B. and Ch.B. of Bristol in 1912, and the same year obtained the L.R.C.P. and M.R.C.S. qualifications. Before the outbreak of the war Lieutenant Goodden was senior resident medical officer at the Bristol Royal Infirmary, but almost directly the forces were mobilised he volunteered for active service, and had been at the front for many months. He was attached to the 2nd Battalion Royal Irish Regiment, and had been previously wounded on the Aisne, a cigarette case, it is said, preventing what would in all probability have been a fatal result. Lieutenant Goodden will be much missed in medical circles at Bristol, for he was one of the most popular "residents" ever holding office at the Bristol Royal Infirmary, and much sympathy is felt for his family.

Plymouth Medical Men and Military Service.

A largely attended meeting of medical men was held in Plymouth on May 13th to consider the call of the War Office for whole-time or part-time military service. Colonel Jones, Assistant Director of Medical Services, who had been deputed by the Deputy Director of Medical Services at Salisbury to be present, was in attendance. The chairman, Mr. R. Jacques, remarked that the War Office would receive more applications if commissions were granted in accordance with age and experience. Some medical men stated that they had written to the War Office some time ago, and had heard nothing more of the matter. Eventually it was decided to circularise the local medical profession, and a committee was appointed to consider the replies and suggest what means could be provided for dealing with the practices of those who volunteered for the work.

Hospital Saturday at Plymouth.

May 15th was observed as Hospital Saturday in Plymouth, when a strong appeal was issued to the local working people for the support of the South Devon and East Cornwall Hospital. The institution had a deficit balance of £2430 at the close of 1914.

The Cornwall County Council and the Treatment of Tuberculosis.

At the last meeting of the Cornwall County Council it was decided to purchase Castle-an-Dinas, at St. Columb Major, as a sanatorium for the treatment of tuberculosis, provided the Local Government Board would give financial assistance. The institution will accommodate 60 patients, and is situated on the south side of a hill about 600 feet above sea level. The cost of the scheme is estimated at £8000.

May 18th.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon:—Dated May 15th: Samuel Henry Woods, Percy Temple Sutcliffe, John Percival Handel Greenhalgh, Edward Theodore Burton, Robert Hughes, Nelson Joseph Roche, Herbert Lyne Geoghegan, John Henry Lightfoot, and Penry Garnons Williams.

The undermentioned Surgeons have been promoted to the rank of Staff Surgeon:—Dated May 14th: Campbell Ross, Cecil Robert Morshead Baker, George Gordon Vickery, and Henry Dennis Drennan.

The undermentioned have been granted temporary commissions as Surgeons in His Majesty's Fleet:—Dated May 11th: Robert Tennent and Basil Sampson. Dated May 12th: Howard James Bates.

ARMY MEDICAL SERVICE.

John Atkins to be temporary Colonel (dated Oct. 20th, 1914).

Temporary Major Cuthbert S. Wallace, from Royal Army Medical Corps, to be temporary Colonel (dated April 29th, 1915).

ROYAL ARMY MEDICAL CORPS.

The undermentioned are granted temporary rank whilst employed at the Norfolk War Hospital:—Dated April 22nd: As Lieutenant-Colonel: David George Thomson. As Major: Alexander Murchison Humphry, Charles Noon, and John Spence Law.

Temporary and Honorary Captain Cyril Alfred Rankin Nitch is granted the temporary and honorary rank of Major whilst serving with the British Red Cross Hospital, Netley (dated April 29th).

The undermentioned are granted temporary rank whilst employed at the Beaufort War Hospital, Bristol:—Dated May 1st: As Lieutenant-Colonel: James Vincent Blackford. Dated May 1st: As Major: John Robert Parry Phillips and Alexander McLean Cato. Dated April 17th: Frederick Sherman Toogood to be temporary Major whilst employed at the Lewisham War Hospital.

The undermentioned to be granted temporary rank whilst serving with the County of London War Hospital:—Dated May 1st: As Lieutenant-Colonel: John Robert Lord. Dated May 1st: As Major: Norcliffe Roberts and Reginald George Riches. William Dewey Duncombe to be temporary Major whilst serving at the City of London War Hospital (dated May 1st). Christopher Thackery Parsons to be temporary Major whilst serving at the Fulham War Hospital (dated May 1st). Edward Llewellyn Zenas Fickling to be temporary Lieutenant (dated Dec. 12th, 1914). Second Lieutenant Albert Edward Quine, from Reserve of Officers, to be temporary Lieutenant (dated May 4th).

The undermentioned Captains relinquish their temporary commissions on ceasing to serve with the Duchess of Westminster's War Hospital:—Dated May 18th: Sydney Scott and Thomas M. Body.

The undermentioned to be temporary Captains whilst serving with the Duchess of Westminster's War Hospital:—Dated May 18th: Forbes Fraser and John Wilfred Nunn.

The undermentioned to be temporary Lieutenants whilst serving with the Welsh Hospital: William MacAdam (dated April 26th) and David John Harries (dated May 10th).

The undermentioned to be temporary Majors: Alfred Lingard (dated April 9th) and temporary Captain Charles Coley Choyce (dated April 27th).

John Evans Phillips, late Captain, 1st North York Volunteer Artillery, to be temporary Captain (dated April 17th).

Harold Jossé Johnson, late Surgeon Captain, to be temporary Honorary Captain (dated May 19th).

The undermentioned to be temporary Lieutenants:—Dated March 1st: William Harle Stott. Dated March 15th: Arthur Cyril Albert Jekyll, Cedric Keith Cohen, and Eric Payten Dark. Dated March 17th: Keith Gemmell Colquhoun, Clive Travers Stephen, Henry Cecil Colville, and Alan Pryde. Dated March 19th: Charles Francis Drew. Dated March 23rd: Edward Rogerson, Louis Michael Pigott, Reginald Blockley Lucas, and William Heitland Godby. Dated April 21st: John Wright Turner, Thomas Wright, Arthur George James Thompson, Thomas Warner, Walter Charles Blackham, Walter Dymock Perry, George Hugh Culverwell, Robert Wilson Buchanan, William Penberthy, Isidore Jack Block, and Thomas Gilcriest. Dated April 22nd: James Boyd, Arthur Thomson Marshall, John Brunton, Barrington William Mudd, Ray Cecil Phelps, Harry Lovett Cumming, and James Hamilton Bogan. Dated April 23rd: James Lawson Whateley, John Hay Heddle, Ivan Whiteside Magill, Charles Gibson, Edmund Sheppard Cuthbert, John Moir MacKenzie, James Murdoch MacKay, Donald McDonald McIntyre, and Thomas Ruddock-West. Dated April 28th: Thomas Gee Williams.

SPECIAL RESERVE OF OFFICERS.

Supplementary to Regular Units or Corps: Royal Army Medical Corps.—The undermentioned Lieutenants (on probation) are confirmed in their rank: John R. Crolius and Robert H. Williams.

TERRITORIAL FORCE.

Army Medical Services.

Major Charles J. Martin, from Attached to Units other than Medical Units, to be Deputy Assistant Director of Medical Services, 2nd London Division.

Lieutenant-Colonel Ernest B. Dowsett, from 5th London Field Ambulance, to be Assistant Director of Medical Services, 2nd London (Reserve) Division, with the temporary rank of Colonel.

Royal Army Medical Corps.

2nd East Anglian Field Ambulance: Lieutenant Arthur Edwin Tait, from 2nd Northumbrian Field Ambulance, to be Lieutenant.

2nd Home Counties Field Ambulance: Henry Travers Jones to be Lieutenant.

2nd North Midland Field Ambulance: Major Richard M. West to be temporary Lieutenant-Colonel. Captain Joseph F. Dixon to be temporary Major.

1st Northumbrian Field Ambulance: Captain George H. Spencer to be temporary Major.

2nd Northumbrian Field Ambulance: Henry Stonehouse to be Lieutenant.

2nd Wessex Field Ambulance: Ernest Hall Scholefield to be Lieutenant.

3rd Wessex Field Ambulance: Captain Harold W. Read, from Attached to Units other than Medical Units, to be Captain.

2nd Highland Field Ambulance: John Moir to be Lieutenant.

London Mounted Brigade Field Ambulance: John Peers MacLulich (late Captain, South African Medical Corps) to be Captain (temporary).

South-Eastern Mounted Brigade Field Ambulance: Lieutenant Charles E. Silvester to be Captain. Alexander Graham Speirs Logie to be Lieutenant.

1st Eastern General Hospital: William Lombard Murphy to be Captain, whose services will be available on mobilisation.

2nd Northern General Hospital: The undermentioned to be Captains, whose services will be available on mobilisation: Carlton Oldfield, Leonard Alfred Rowden, Alfred Gough, Henry Harold Greenwood, Joseph Albert Blayney, Arthur Ellison, and Frederick William Marshall Greaves.

Highland Casualty Clearing Station: Captain Alexander Don, from 1st Scottish General Hospital, to be Major (temporary). James Davidson to be Lieutenant.

South Midland Casualty Clearing Station: Astley Bennett Prosser to be Lieutenant.

Highland Divisional Sanitary Section: Captain James M. McQueen, from 1st Scottish General Hospital, to be Captain.

2nd London Sanitary Company: Frederick George Rose to be Lieutenant.

3rd London General Hospital: Lieutenant Alfred Hope Gosse to be Captain on the permanent personnel.

1st Scottish General Hospital: Ian Gordon Bisset to be Lieutenant.

1st Southern General Hospital: Lieutenant-Colonel Harry G. Barling is seconded.

3rd Southern General Hospital: Arthur John Drew to be Captain, whose services will be available on mobilisation.

Attached to Units other than Medical Units.—To be Majors: Surgeon-Major Percival E. Barber, from West Riding Royal Horse Artillery, and Surgeon-Captain Alfred Robinson, from 5th Battalion, The York and Lancaster Regiment. William Appleyard (late Captain, 6th Battalion, The Prince of Wales's Own (West Yorkshire Regiment)) to be Captain. To be Lieutenants: Edgar Babst (late Lieutenant, 5th Battalion, Northumberland Fusiliers), Andrew Lowry McCully, John David Jones (late Lieutenant, 4th Battalion, The Welsh Regiment), and Samuel Shepheard. Lieutenant Charles W. Wirgman is seconded.

COUNCIL OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.—**Mr. Alexander Blayney, F.R.C.S. Irel., has been elected a member of the Council of the Royal College of Surgeons in Ireland in room of the late Sir John Lentaigne. Mr. Blayney, like his predecessor, is a member of the staff of the Mater Misericordiæ Hospital.**

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN the 96 English and Welsh towns with populations exceeding 50,000 persons at the last Census, 8117 births and 4954 deaths were registered during the week ended Saturday, May 15th. The annual rate of mortality in these towns, which had steadily declined from 19·9 to 15·5 per 1000 in the five preceding weeks, further fell in the week under notice to 14·2 per 1000 of their aggregate population, estimated at 18,136,180 persons at the middle of last year. During the first six weeks of the current quarter the mean annual death-rate in these towns averaged 17·2, against a corresponding rate of 18·1 per 1000 in London. Among the several towns the death-rate last week ranged from 5·2 in Ilford, 7·2 in Gloucester, 7·3 in Ealing and in Great Yarmouth, 7·7 in Enfield, and 7·9 in Wimbledon, to 22·0 in Bury, 22·4 in York, 22·5 in Lincoln, 24·2 in Sunderland, and 31·8 in Middlesbrough.

The 4954 deaths from all causes were 429 fewer than in the previous week, and included 484 which were referred to the principal epidemic diseases, against 711 and 557 in the two preceding weeks. Of these 484 deaths, 238 resulted from measles, 105 from whooping-cough, 57 from infantile diarrhœal diseases, 48 from diphtheria, 25 from scarlet fever, and 11 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·4, or 0·2 per 1000 less than in the previous week. The deaths attributed to measles, which had been 389, 392, and 276 in the three preceding weeks, further fell to 238 last week, and caused the highest annual death-rates of 2·0 in Salford and in Sheffield, 2·4 in Barrow-in-Furness, 2·6 in Coventry, 3·8 in Wolverhampton, 4·8 in Sunderland, 6·1 in Walsall, and 6·6 in Middlesbrough. The deaths referred to whooping-cough, which had decreased from 167 to 121 in the five preceding weeks, further fell to 105 last week; the highest death-rates from this cause were 1·2 in Walthamstow, 1·6 in Acton and in St. Helens, 2·1 in Middlesbrough, and 2·3 in Wigan. The fatal cases of diarrhœa and enteritis (among infants under 2 years), which had been 65, 73, and 67 in the three preceding weeks, further fell to 57 last week, and included 15 in London, and 3 each in Birmingham and Manchester. The deaths attributed to diphtheria, which had been 49, 56, and 51 in the three preceding weeks, declined to 48 last week, of which 11 occurred in London, 4 in Manchester, and 3 in West Ham. The deaths referred to scarlet fever, which had been 29, 34, and 30 in the three preceding weeks, further fell to 25 last week, and included 6 in London and 2 each in Willesden, Birmingham, Coventry, Manchester, Blackburn, and Leeds. The fatal cases of enteric fever, which had been 8, 12, and 12 in the three preceding weeks, were 11 last week, but showed no excess in any particular town.

The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2369, 2377, and 2384 at the end of the three preceding weeks, had decreased to 2332 on Saturday last; 270 new cases were admitted during the week, against 259, 316, and 307 in the three preceding weeks. These hospitals also contained on Saturday last 1174 cases of diphtheria, 186 of measles, 59 of enteric fever, and 12 of whooping-cough, but not one of small-pox. The 1255 deaths from all causes in London were 129 fewer than in the previous week, and corresponded to an annual death-rate of 14·5 per 1000. The deaths referred to diseases of the respiratory system, which had decreased from 469 to 289 in the four preceding weeks, further fell to 227 in the week under notice, but were 37 above the number recorded in the corresponding week of last year.

Of the 4954 deaths from all causes in the 96 towns 210 resulted from different forms of violence and 376 were the subject of coroners' inquests, while 1512 occurred in public institutions. The causes of 48, or 1·0 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in Sheffield, Leeds, Bristol, West Ham, Bradford, Hull, Newcastle-on-Tyne, and in 67 other smaller towns. Of the 48 uncertified causes of death, 10 were registered in Birmingham, 6 in Liverpool, 3 each in Gillingham, Stoke-on-Trent, Bootle, and Gateshead, and 2 each in Southend-on-Sea, Dudley, Nottingham, and Rotherham.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns with an aggregate population estimated at 2,345,500 persons at the middle of this year, 1175 births and 807 deaths were registered during the week ended Saturday, May 15th. The annual rate of mortality in these towns, which had been 18·5, 20·2, and 18·1 per 1000 in the three preceding weeks, further fell to 17·9 per 1000 in the week under notice. During the first six weeks of the current quarter the mean annual death-rate in these towns averaged 19·4, against a corresponding rate of 17·2 per 1000 in the large English towns. Among the several towns the death-rate last week ranged from 11·7 in Clydebank, 12·9 in Edinburgh, and 14·0 in Kirkcaldy, to 19·6 in Glasgow, 21·3 in Falkirk, and 27·6 in Motherwell.

The 807 deaths from all causes were 8 fewer than the number in the previous week, and included 117 which were referred to the principal epidemic diseases, against 150 and 142 in the two preceding weeks. Of these 117 deaths, 49 resulted from measles, 45 from whooping-cough, 9 from infantile diarrhœal diseases, 8 from diphtheria, and 6 from scarlet fever, but not one from enteric fever or from small-pox. The mean annual death-rate from these diseases was equal to 2·6, against 1·4 per 1000 in the large English towns. The deaths attributed to measles, which had increased from 19 to 47 in the four preceding weeks, further rose to 49 last week, and comprised 40 in Glasgow, 5 in Aberdeen, 3 in Falkirk, and 1 Clydebank. The deaths referred to whooping-cough, which had declined from 90 to 65 in the four preceding weeks, further fell to 45 last week, of which 33 occurred in Glasgow, 4 in Aberdeen, and 3 in Edinburgh. The fatal cases of diarrhœa and enteritis (among infants under 2 years), which had been 12, 9, and 15 in the three preceding weeks, fell to 9 last week, and included 3 each in Glasgow and Edinburgh. The deaths attributed to diphtheria, which had been 6, 12, and 7 in the three preceding weeks, were 8 last week, of which 3 were registered in Glasgow. The 6 deaths referred to scarlet fever were 2 below the average in the earlier weeks of the quarter, and included 2 each in Glasgow and Aberdeen. In addition to the above deaths, a fatal case of typhus occurred in Dundee.

The deaths referred to diseases of the respiratory system, which had been 145, 153, and 118 in the three preceding weeks, slightly rose to 121 in the week under notice, and were 17 in excess of the number recorded in the corresponding week of last year. The deaths from violence numbered 26, against 25 and 23 in the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,212,380 persons at the middle of this year, 582 births and 438 deaths were registered during the week ended Saturday, May 15th. The annual rate of mortality in these towns, which had been 22·4, 19·1, and 19·9 per 1000 in the three preceding weeks, fell to 18·8 per 1000 in the week under notice. During the first six weeks of the current quarter the mean annual death-rate in these towns averaged 21·0, against corresponding rates of 17·2 and 19·4 per 1000 in the English and Scotch towns respectively. The death-rate last week was equal to 21·9 in Dublin (against 14·5 in London and 19·6 in Glasgow), 15·1 in Belfast, 16·3 in Cork, 20·2 in Londonderry, 31·1 in Limerick, and 19·0 in Waterford, while in the 21 smaller towns the mean death-rate was 18·3 per 1000.

The 438 deaths from all causes were 25 fewer than the number in the previous week, and included 27 which were referred to the principal epidemic diseases, against numbers declining from 41 to 33 in the three preceding weeks. Of these 27 deaths, 10 resulted from whooping-cough, 8 from infantile diarrhœal diseases, 4 from measles, 3 from diphtheria, and 1 each from enteric fever and scarlet fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·2, against corresponding rates of 1·4 and 2·6 per 1000 in the English and Scotch towns respectively. The deaths attributed to whooping-cough, which had been 20, 9, and 9 in the three preceding weeks, were 10 last week, and comprised 5 each in Dublin and Belfast. The deaths of infants (under 2 years) referred to diarrhœa and enteritis, which had been 5, 10, and 9 in the three preceding weeks, were 8 last week, of which 6 were recorded in Dublin. The fatal cases of measles, which had been 13, 11, and 10 in the three preceding weeks, further fell to 4 last week, and comprised 2 each in Belfast and Portadown. Of the 3 deaths attributed to diphtheria, 2 were registered in Dublin and 1 in Belfast. The fatal case of enteric fever was recorded in Sligo, and that of scarlet fever in Waterford.

The deaths referred to diseases of the respiratory system, which had steadily declined from 158 to 76 in the five preceding weeks, rose to 82 in the week under notice. Of the 438 deaths from all causes, 138, or 32 per cent., occurred in public institutions, and 4 resulted from various forms of violence. The causes of 16, or 3·7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the large English towns the proportion of uncertified causes did not exceed 1·0 per cent.

THE death by fever in Upper Nigeria of Dr. John Beattie, of the West African Medical Service, is announced.

Correspondence.

"Audi alteram partem."

DIFFICULT LABOUR AND DENTAL DEFORMITIES.

To the Editor of THE LANCET.

SIR,—In your issue of April 24th I notice a request by Mr. J. F. Colyer asking for details and models of dental deformities presumably caused by obstetric operations. As I have been since 1906 carefully collecting such statistics for a future communication and have not heard of others engaged in this inquiry, I believe I am the only observer who possesses the information which Mr. Colyer desires, but this is, obviously, at present not at Mr. Colyer's disposal.

I do not believe Mr. Colyer will be able to obtain much reliable material as a result of his impetuous appeal in your columns, for as these deformities do not fully develop until the permanent teeth have erupted, a period of more than seven years must elapse after birth before the exact nature of the deformity is known. It is unlikely that the accoucheur who was present at the birth would take models of the denture, or even associate the deformity with the difficult labour. I am sure Mr. Colyer will have to adopt my plan of patiently following up each case as it presents itself, interrogating the mother, and if possible examining the medical attendant's records. This is a very slow process, but it is the only way to obtain sufficient material for proof; the field is so entirely new and tabulated records will have to be made. Mr. Colyer has under his own care one of the most valuable cases in this connexion. At the annual meeting of the International Medical Congress in 1913 at a demonstration meeting at the Dental Hospital he exhibited a boy, an extreme case of mandibular protrusion. He told us this was nothing, just an ordinary case of mandibular protrusion. In a conversation I had with the mother before the demonstration, and in reply to my inquiry, she informed me that the labour was very prolonged and dangerous, the head being in the *left side*. It was evident that this was a case of transverse presentation, and that the operation of turning had been performed; to do this the operator had exerted sustained and forcible traction by means of the mandible, forcibly straightening this cartilaginous structure at the angle and increasing its length; from this injury it had not recovered. Possibly the relation by the mother to Mr. Colyer of our conversation has served to interest him in this inquiry.

I cannot claim to be the first in this field; this honour is due to Dr. L. S. Chilcott, whose paper, An Obstetrical Deformity of the Mandible, appeared in the *Dental Cosmos* in March, 1906, but I do believe I am the first to systematically study each case of these deformities from the obstetrical standpoint. Dr. Chilcott's case was one of breech presentation, and he contended that the deformity was caused by great pressure upon the angle by the bone of the pelvic outlet, producing an open bite. The angle of the mandible in this case was so obtuse that it had almost disappeared.

The above are both cases of mandibular deformity due to malpresentation. Superior protrusion is much more common, and I have suspected for some time that a small pelvic outlet and the use of the midwifery forceps, the lateral pressure of which is very powerful, is responsible for many cases of this condition.

My records show that of those cases I have been able to trace the forceps were used in 80 per cent.

I am, Sir, yours faithfully,

Denmark Hill, S.E., May 12th, 1915. FREDERICK LONNON.

MENTAL TREATMENT BILL.

To the Editor of THE LANCET.

SIR,—My attention has been called to a letter from Dr. S. E. White in your issue of May 8th. This letter is based on a misconception of the law and the results following from the law, which were clearly explained in the Memorandum to Lord Russell's Bill mentioned in the letter.

By Section 315 of the Lunacy Act, 1890, it is a misdemeanour to take charge of, receive to board or lodge or to detain a lunatic or *alleged* lunatic in an unlicensed house; and it is made unlawful, except under the provisions of the Act, for any person to receive or detain two or more lunatics in any house unless the house is an institution for lunatics or a workhouse. The case law shows clearly that it is no defence to a prosecution to show that the accused was quite unaware of the fact that a patient was a lunatic or *alleged* lunatic. The practical result is that very few people indeed can be found willing to receive "borderline" cases, for the risk of prosecution is too great, and if prosecution takes place conviction almost inevitably follows. It is futile to criticise a proposal to legalise treatment which is voluntary as regards the patient, when the law makes it a crime to receive or take charge of an alleged lunatic irrespective of the question whether he consents or not.

Lord Russell's Bill was intended to enable treatment of "borderline cases" without fear of prosecution. The rest of the Bill was machinery to prevent abuse of such permission. Legislation is imperatively necessary for this purpose.

I am, Sir, yours faithfully,

ROLAND BURROWS.

Brick Court, Temple, E.C., May 13th, 1915.

*** The Bill was formally withdrawn this week and some explanation of the views of the Government appeared in a statement made by Mr. Cecil Harmsworth.—ED. L.

THE DETECTION OF PROJECTILES IN WOUNDS BY THE ELECTRO-MAGNET.

To the Editor of THE LANCET.

SIR,—I hasten to draw the attention of my colleagues employed at hospitals for the wounded to the excellent results obtained from the methods adopted by Professor Bergonié, who searches for projectiles by means of an electro-magnet with alternating current (fonctionnant sur courant alternatif).

When a magnetic body is found within the field of the apparatus a quite particular vibration is produced which the hand easily recognises, and which emanates from the foreign body itself. If this foreign body is situated in the tissues the maximum point of vibration corresponds with the projection of this body upon the superfices (à la projection de ce corps sur la superficie). The intensity of the vibration apprises us at the same time of the volume and situation in point of depth of the body. The process is rapid, simple, cleanly, and allows the surgeon to inform himself at every stage of his operation.

I have had the privilege of experimenting with this apparatus under the direction of Professor Bergonié himself in a hospital at the front, and the results have far surpassed our expectations. I feel it my duty to make it known as a matter of urgent importance. I know how much sudden enthusiasms should be suspected in the case of a new method. But at this time when inventions for demolishing humanity seem to be attaining perfection every day, one can claim some credit for an invention which promises, though it be novel, to alleviate suffering.

I hold myself at the disposal of my colleagues for all additional explanations.

I am, Sir, yours faithfully,

GUSTAVE MONOD,
Médecin Major, M.D. Paris, M.R.C.P. Lond., &c.
Ambulance 10, Corps d'Armée 6, Secteur 154.

THE MEDICAL DEFENCE UNION AND THE NATIONAL INSURANCE COMMISSIONERS.

To the Editor of THE LANCET.

SIR,—In order to test the validity and legality of the regulations of the National Insurance Commissioners in the matter of surcharging panel practitioners for alleged extravagance in prescribing for insured persons, the Medical Defence Union has, on behalf of two of its members concerned, caused to be issued writs in the High Court. I need hardly point out to your readers in general, and to those on the panel in particular, the importance of these actions, which I trust will be before His Majesty's judges within a comparatively short time. The Medical Defence Union has already been successful in every action or appeal brought in respect of legal questions under the Act, and is engaged daily in working, *inter alia*, for the protection of those who have joined the panel willingly or unwillingly.

Those who have not joined the Medical Defence Union should do so without delay, as this year will be critical in the history of panel practitioners, and they cannot afford to be without its protection.

I am, Sir, yours faithfully,

A. G. BATEMAN,
4, Trafalgar-square, W.C., May 15th, 1915. General Secretary.

PRELIMINARY EXPLORATION OF THE PELVIS IN CERTAIN CASES OF ACUTE APPENDICITIS.

To the Editor of THE LANCET.

SIR,—Professor W. Sampson Handley, in his interesting lecture on Ileus Duplex in your issue of May 1st, advocates exploration of the pelvis, through a preliminary median sub-umbilical incision, in cases where there is doubt as to whether the infection has spread from the right iliac fossa to the pelvis. On the principle that in dealing with a possible extension of the infection beyond the iliac fossa it is always better to know than to guess, the writer has for some years employed a procedure similar, except in the detail that a 2-inch incision is made over the lower portion of the left rectus muscle, the fibres of which are split, with the object of preventing post-operative hernia.

A recent case was that of a young man who when first seen had advanced appendicitis and was ashen grey from toxæmia. Preliminary exploration through the left lower rectus showed gross infection of the lower abdomen. Large drainage tubes through the left rectus, the right iliac fossa and loin, combined with the Fowler position and many pints of saline solution given per rectum by Murphy's method, resulted in interrupted recovery with total absence of incisional herniæ. Preliminary exploration through the left lower rectus takes but a few minutes, changes doubt into certainty, and appears to have no serious drawbacks.

I am, Sir, yours faithfully,

Plymouth, May 4th, 1915. C. HAMILTON WHITEFORD.

THE TREATMENT OF CORNS.

To the Editor of THE LANCET.

SIR,—I have read with much interest the letter of Mr. Paul Bernard Roth in your issue of May 15th. Some years ago I was an absolute martyr to corns, one particular corn giving me most excruciating annoyance when I walked. I conceived the idea of wearing two pairs of socks, a thin pair (merino) next the skin and a thick woollen pair over these, and I took particular care to have boots with thick soles "made to the foot" and would not have my "foot made to the boot." In a very short time my corns disappeared and I have not been troubled since, but my friends laugh at my boots. I now find walking a pleasure.

I am, Sir, yours faithfully,

May 14th, 1915. D.P.H.

Obituary.

BERTRAM HERBERT LYNE STIVENS, M.R.C.S., M.D. BRUX.

Dr. Bertram Herbert Lyne Stivens passed away at his residence, 107, Park-street, Grosvenor-square, London, on Sunday afternoon, May 9th. He was in his usual health up to Friday, April 30th, when a feverish attack with sore-throat supervened. On Monday, May 3rd, feeling somewhat better, he attended to his professional duties, as also on the following day. On Tuesday evening, May 4th, the inflammation of the throat returned and became rapidly worse, and on Sunday afternoon he died from streptococcal pharyngitis with œdematous laryngitis and pyæmic infection. This is always rapid and often fatal, particularly in a constitution which is not strong. In spite of his manly figure and fine presence Dr. Stivens had visibly failed, we are informed by a personal friend of his, since the death of a beloved daughter two years ago.

Dr. Stivens was born at Birkdale in 1855. He spent his early life in Cheshire and was educated at Bunbury Grammar School. Later he studied abroad at Stuttgart and Heidelberg University. He then decided upon a medical career and entered the medical school of King's College Hospital in 1877, being some four or five years older than most of the men of his year. He had a very successful career as a student, and proceeded to the tenure of two residential posts at that time much coveted. He was first house accoucheur under the late Dr. W. S. Playfair, and later house surgeon to the great Lister himself at the time when the operating theatre used to be crowded with visitors to learn the new antiseptic methods. These two posts under such masters were sufficient to lay the foundation of a talent for accurate and conscientious observation to which he owed his success in practice.

Although Dr. Stivens might well have aspired to consulting work, the opportunity of joining an old-established practice in the West-end decided him to go direct from the wards to family practice in Kensington Gardens-square. Here his success, at

a comparatively early age, was both rapid and easy. It was easy because to his knowledge and skill he was able to add the manner which is such a large factor of success in private practice. His manner was not a pose, but was the expression of a frank, sympathetic, genial, and hearty nature which took the deepest and most sincere interest in his patients and his friends. He later moved from Kensington Gardens-square to Park-street, Grosvenor-square, where his practice still further rapidly increased, and where he had the honour of attending members of the Royal family. He was an accomplished linguist, and his studies abroad stood him in good stead in medical practice. He included amongst his friends many of the most distinguished continental physicians; he often visited their clinics, and introduced into this country several new methods of investigation and treatment which were being developed on the continent. Thus he appreciated the importance of the analytical investigations in gastro-intestinal diseases which were being undertaken in France and Germany, and he was perhaps the first to carry out in this country these methods of investigation, and to utilise them in guidance for appropriate medical treatment. He was familiar with the operation for removal of enlarged tonsils and adenoids in suitable cases long before it was generally practised in this country, and was among the first in performing this useful operation here in suitable cases. If he had aspired to it he might certainly have risen to more scientific eminence in his profession, since he had great gifts and especial knowledge and experience. He was content, however, with a less public and perhaps more satisfactory career, for it may be truly said of him that he loved to go about doing good.

Circumstances made him early in life independent of his profession, but his love for the practice of his art induced him to continue it long after other men would have given it up. He was a keen sportsman and fond of country life, and he was happy in his country home when the exigencies of his busy life permitted him to stay there. He was a devoted husband and father, and a most loyal and hospitable friend. His friend and patient, Sir Rider Haggard, suggests for his epitaph the words "Our Beloved Physician," and this expresses the regard which all his patients without exception felt towards him.

Dr. Stivens married Belita, the daughter of the late Mr. George Drabble, of Pembridge-square, W. The sympathy of the medical profession and of a large circle of friends will go out to his widow and two daughters in their bereavement.

A NEW ROUTE TO ITALY.—The Paris, Lyons, and Mediterranean Railway opened to traffic on May 16th the new line "Frasne-Vallorbe," the construction of which was commenced at the end of the year 1910. This line has a double track of about 24 kilometres (15 miles) in length, 22 of which are in French territory. It branches off from the Dijon-Pontarlier line at the station of Frasne, and crosses one of the most picturesque districts of the French Jura. It serves the two beautiful lakes of Remoray and Saint Point, penetrating the "Mont d'Or" through a tunnel of 6670 yards in length, and joining again the Pontarlier-Lausanne line at Vallorbe. The improvements carried out have resulted in a gain of from 45 minutes to one hour on the journey between Paris and Lausanne. The large radius of the curves is favourable for speed, and, in winter, the tunnels and pine forests through which the line passes are a protection against snowstorms. With these improvements the P.L.M. line will, more and more, become the traveller's highway between Paris and Italy.

THE BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.

THE CENTRAL COMMITTEE.

A MEETING of the Central Committee was held on Thursday, May 13th, when Sir Rickman Godlee, the chairman, announced that he had received from Dr. Péchère, President of the Aide et Assistance aux Médecins et Pharmaciens Sinistrés, a formal receipt for the money sent by the Fund to Belgium for distribution, and it was agreed to forward the same amount on future occasions, and at intervals, as soon as particulars of distribution had been ascertained.

The treasurer, Dr. Des Vœux, reported that he had placed further sums of money on deposit, and noted that the subscription lists had now begun to get smaller. It was the feeling of the Committee that this might be due to the fact that much of the money collected had not yet been spent, but it was hoped that the urgent need of the cause would not be lost sight of. At the rate of expenditure sanctioned by the Committee, the Fund, at its present figure, will not last very long, and it is particularly desirable that when hostilities cease there should be some money in hand to form a nucleus for an international scheme of reinstatement after the war.

CLOTHES REQUIRED.

Gifts of clothes would be welcomed by the Committee. The supply is running short, and assistance in this direction is often very valuable to and highly appreciated by our Belgian colleagues and their families. All parcels of clothes should be addressed to Mrs. Colebrooke, Wesleyan Training College, Horseferry-road, London, S.W.

BIRMINGHAM LOCAL COMMITTEE.

This committee held its final meeting on Tuesday, May 11th, with Professor Barling in the chair, in order to receive reports from Professor R. Saundby and Mr. F. Smith. The accounts and vouchers had been submitted to Sir Thomas Barclay, who had audited them and given certificates of their accuracy. The total amount collected was £526 5*s.* 3*d.*, the whole of which has been remitted to Dr. Des Vœux, the honorary treasurer of the Fund in London. All expenses have been defrayed locally, and there has been no deduction from the amounts subscribed.

Further subscriptions will be forwarded to Dr. Des Vœux, and acknowledged as usual by publication of the names of the donors in the medical journals.

THE WEEK'S SUBSCRIPTIONS.

The subscriptions received by Dr. Des Vœux up to Tuesday evening last, in addition to those previously acknowledged, are as follows:—

	£	*s.*	*d.*
Bucks Division, B.M.A. (per Dr. A. E. Larking)—			
Dr. W. H. Square ...	1	1	0
Dumfries and Galloway Division, B.M.A. (per Dr. J. Dewar Robson, Hon. Sec.)—			
Dr. Scott	0	10	6
Dr. Bryson	0	10	6
Dr. Chalmers	1	1	0
Dr. Dunlop	1	1	0
Dr. McKie	0	10	6
Dr. Shaw	1	1	0
Dr. J. Dewar Robson...	2	2	0
Dr. Brown	1	1	0
Stewartry of Kirkcudbright Secondary Education Committee (per Dr. J. Gair Johnston, School Medical Officer)	1	1	0
Tower Hamlets Division, B.M.A. (per Dr. W. H. F. Oxley, Hon. Sec.)—			
Dr. H Hamilton Mack	0	10	6
Nottingham and Notts Pharmaceutical Association (per Mr. H. P. Middleton)	5	5	0
Hants County Pharmaceutical Association (per Mr. S. G. Bartlett)	0	10	6

Subscriptions to the Fund should be sent to the treasurer of the Fund, Dr. H. A. Des Vœux, at 14, Buckingham-gate, London, S.W., and should be made payable to the Belgian Doctors' and Pharmacists' Relief Fund, crossed Lloyds Bank, Ltd.

The War.

THE CASUALTY LIST.

THE following names of medical officers appear in the casualty lists published since our last issue:—

Killed: Major J. Woods, I.M.S., Lieutenant Henry Wyndham Goodden, (attached 2nd Royal Fusiliers), Lieutenant M. Pern, Captain S. Field, all of the R.A.M.C. Captain Field was the son of Mr. G. P. Field, the well-known aurist.

Died of wounds: Lieutenant John Aquila MacMahon, R.A.M.C.

Wounded: Captain E. A. Sutton, Lieutenant E. H. Griffin, Lieutenant C. W. Sparks (attached Royal Irish Fusiliers), Lieutenant A. N. Hooper (attached 2nd East Yorks Light Infantry), Lieutenant E. C. Linton, Major J. S. Y. Rogers (attached 4th Black Watch T.F.), Captain W. Rogers (attached 5th Cheshires), Lieutenant F. H. Sprague, all of the R.A.M.C. Captain J. W. B. Bean, Australian Medical Service.

Missing: Captain P. G. M. Elvery, R.A.M.C. (attached 1st Yorks Light Infantry), Fleet-Surgeon George A. Waters, R.N., of the *Goliath*. Lieutenant J. A. Stenhouse, R.A.M.C., previously officially reported missing, is now unofficially reported a prisoner of war.

Both the medical officers of the *Lusitania*, Dr. J. F. McDermott and Dr. Joseph Garry, were among the drowned.

Captain Eric Evans (4th Royal Welsh Fusiliers), who has died of his wounds, was a son of Mr. E. D. Evans, M.R.C.S., J.P., of Wrexham, and had nearly completed his medical course when the war broke out and the regiment in which he held a lieutenant's commission was mobilised.

DEATHS AMONG THE SONS OF MEDICAL MEN.

Already many medical men have had the sad experience of losing their sons in the war. The late Dr. Lewis Jones, Sir Wilmot Herringham, Dr. Norman Moore, Dr. H. D. Rolleston, Sir Pardey Lukis, Sir James Barr, and Mr. W. H. Battle are among those who have thus paid with their dearest possessions the price of patriotism, and other names will occur to our readers. During this month a heavy toll of this kind has been exacted from members of our profession, the following deaths being announced in recent casualty lists. Lieutenant T. M. Garrod, second son of Dr. A. E. Garrod; Second Lieutenant R. T. Shaw, elder son of Dr. Lauriston Shaw; Lieutenant C. B. Spence, younger son of Dr. James B. Spence, of Burntwood; Second Lieutenant R. Fazan, youngest son of Mr. C. H. Fazan, of Wadhurst; Second Lieutenant E. H. Orton, youngest son of Dr. G. H. Orton, of Kensington; Second Lieutenant A. H. S. Tuke, only son of Dr. T. S. Tuke, of Chiswick; Second Lieutenant H. W. Hodges, elder son of Mr. H. C. Hodges, of Watton-at-Stone; Captain T. R. Scott, eldest son of Dr. Thos. Rennie Scott, of Musselburgh; Second Lieutenant T. M. Bond was the son of Major T. M. Bond, attached R.A.M.C. Captain G. D. Mathew, whose death has also been reported, was the youngest son of the late Brigade-Surgeon Lieutenant-Colonel R. G. Mathew; and Second Lieutenant F. P. Trevor was the only son of the late Mr. A. T. H. Trevor, of Beaumaris.

THE MEDICAL RESEARCH COMMITTEE (NATIONAL HEALTH INSURANCE) AND WORK IN CONNEXION WITH THE WAR.

An interim report has been issued on the special work in connexion with the war at present undertaken by the Medical Research Committee of the National Health Insurance Commission.

It is addressed by Dr. W. Morley Fletcher, F.R.S., Secretary of the Medical Research Committee, to the Right Hon. E. S. Montagu, M.P., Chairman of the National Health Insurance Joint Committee, and runs as follows:—

As desired, I submit herewith a *précis* of the work already undertaken by the Medical Research Committee in connexion with the war. This work is, of course, additional to the schemes of research previously organised by the committee in other directions independently of the war, which is still in progress, except in so far as it has been thought expedient or necessary to suspend it in favour of work of greater urgency.

Mount Vernon Hospital Building, Hampstead.

The building and grounds which the committee had acquired at Hampstead for conversion into the laboratories of their central institute were placed by the committee upon the outbreak of war at the disposal of the War Office. For some months the building has been in use as a military hospital, for which its nature and position give it exceptional fitness.

Compilation and Analysis of the Medical Statistics of the Military Forces.

The whole resources of the Statistical Department of the committee, under the direction of Dr. John Brownlee, have been placed at the disposal of the War Office, and this department is now carrying out, on behalf of the Army Council, the compilation of the statistics of the sick and wounded from the military forces. At a later date the department will undertake the analysis of the collected statistics. For the purposes of this work the committee have taken special premises, which they have equipped with the necessary furniture and staff. Card indices are being compiled from the returns provided from official sources, and typists are engaged at the military hospitals throughout the country to secure the rapid collection of information from the hospital books. The committee are indebted to the London Divisional Office of the Labour Exchanges under the Board of Trade for the rapid and economical organisation of these women workers. In the view of the committee the compilation and analysis of these medical statistics, in the circumstances of the present war, will have a general value in providing information in various directions with regard to the health and stamina of the male population of these islands, in addition to its particular value from the special points of view of military requirements and of the Army Medical Service. The services of Dr. Brownlee and his assistants have also been lent for a statistical investigation of the male population of the German Empire and its present distribution, which has been undertaken in connexion with military purposes.

Pathological Work at Military Hospitals.

The committee have assisted the War Office in supplying pathologists and bacteriologists for work at military hospitals in this country. In general, where commissioned officers have been obtainable for this work, grants have been made for the supply of special apparatus for particular purposes not falling within the ordinary routine of hospital work. At many of the centres grants have been made for part-time work by pathologists without commissions, whose work in some cases is carried out in adjacent laboratories belonging to university or other bodies. In certain cases the committee have equipped special laboratories within military hospitals for the purposes of routine work or for the conduct of special inquiries, or both.

Special Inquiries.

Work by the Committee's Bacteriological Department.—The whole services of the Bacteriological Department under the direction of Sir Almroth Wright, who had accepted appointment by the committee as director of that department before the outbreak of war, have been applied to purposes of military

importance. During the first month of the war Sir Almroth Wright and his staff appointed by the committee gave the whole of their time to assist at the inoculation department of St. Mary's Hospital in the preparation of vaccines for the use of H.M. Forces, and during that time very large quantities of antityphoid vaccine and antisepsis vaccine were supplied, as they have continued since to be supplied by the inoculation department, to the Admiralty, the War Office, and the French and Belgian armies. Sir Almroth Wright in September was appointed consulting physician to H.M. Forces Overseas, with the rank of colonel, and he, with Captain Douglas and Lieutenant Parry Morgan, have since prosecuted important researches at Boulogne, bearing upon the treatment of infected wounds. Preliminary results of these inquiries have already been published and have led to the circulation by the War Office of a memorandum to all medical officers with the forces at home or abroad with regard to their application in practice. The Medical Research Committee have also maintained three members of Sir Almroth Wright's staff in work under his direction at the inoculation department of St. Mary's Hospital. It is proposed in the immediate future to add to Sir Almroth Wright's staff at Boulogne two senior bacteriologists to follow special lines of research arising in connexion with his own work. In accordance with the rule laid down for the Civil Service, every member of the committee staff to whom H.M. commission as a military officer has been given receives the amount of his salary from the committee less the amount of his military pay.

Cholera expedition to Galicia.—Dr. John Freeman, with an interpreter, was sent by the committee last autumn to Galicia, where he enjoyed the temporary rank of lieutenant-colonel in the Russian Army, in order to investigate the various strains of cholera infection, endemic or epidemic, in that district, and to bring to this country cultures of the chief strains. It appears important to the committee that these strains should be available for the preparation of vaccines in view of the possible eventuality of a transference of infection to the Allied Forces in the western theatre of war. The results of the expedition were placed at the disposal of the inoculation department of St. Mary's Hospital, which has been able already to supply large quantities of anti-cholera vaccines to the Serbian Government and to the British Forces in the Mediterranean area.

Bilharzia expedition to Cairo.—The committee are supporting by grant from the Medical Research Fund the expenses of inquiries near Cairo by Colonel Leiper and two assistants. This work has in view the application and extension of the results of recent discoveries with regard to the life-history of the species of bilharzia which is endemic in the Nile delta with special reference to the prophylactic measures to be taken for the protection of the visiting forces.

Typhoid bacilli and paratyphoid bacilli, α and β.—Grants have been made for work at Oxford under the direction of Professor Dreyer for the development and application of methods securing accurate measurement of the agglutination reactions in typhoid and paratyphoid infections and for the study of the action of light rays of particular wave lengths used for the separation of bacillus typhosus or paratyphosus in mixtures of these with other organisms. In view of the results of this work the committee are supporting the simultaneous study of the same methods at Boulogne, London, Leicester, and Netley. Investigations of similar problems connected with these infections are being supported at Manchester under the direction of Professor Delépine.

Standardisation of emulsions and sera for agglutination tests (typhoid and paratyphoid).—The committee are engaged in establishing at Oxford, under the direction of Professor Dreyer, a department for the regular standardisation of emulsions and sera for agglutination tests. The standard emulsions and sera will be supplied to military hospitals for the convenience of bacteriologists and for the better coördination of results obtained by different observers at different times and places.

Antiseptics.—At Leeds the committee are supplying assistance to Professor Cohen for the preparation of new chemical substances of antiseptic value. Professor Cohen is working in conjunction with Dr. Carrel and Dr. Dakin, who are making clinical observations in France. At the London Hospital Medical College the committee are supporting the joint investigation by Dr. Fildes and Dr. Rajchmann, with Mr. Cheatle, at Haslar, into certain compounds of antiseptic value. At Edinburgh special inquiries into antiseptics, and into the infections of wounds, under the direction of Professor Lorrain Smith and Professor Ritchie, are also in progress.

Epidemic cerebro-spinal meningitis ("spotted fever").—The committee are supplying the War Office with the services of Dr. M. H. Gordon, temporary Major, who is directing the whole of the routine bacteriological work undertaken in this country in connexion with the study and control of this disease among the military forces. The committee have made grants to provide two assistants for Major Gordon at the central laboratory for cerebro-spinal meningitis established at the Royal Army Medical College, Millbank, and have further supplied assistance at Woolwich, Brighton, Exeter, Newcastle-on-Tyne, Cambridge, Manchester, Cardiff, Bristol, and Devonport for the completion of the whole scheme of distribution of workers organised by the War Office. The committee have initiated special research work by Dr. Colebrook and Dr. Tanner into the methods of sterilising positive "contacts," and this is in progress in the research wards supported by the committee in connexion with the inoculation department at St. Mary's Hospital. Another investigation into certain questions of the mode of infection and of spread of disease is also in progress at the Millbank laboratory.

Neurological Work at Military Hospitals.

The committee have endeavoured to arrange for the better coördination of the study and description by trained observers of the important groups of neurological cases at military hospitals. In conjunction with workers abroad, neurologists in London and at several provincial centres are now working upon a common plan, the committee providing certain printed forms, diagrams, and apparatus. A card index is being compiled for reference to the full clinical records in individual hands. In connexion with this scheme grants are already being made for part-time work by five or six uncommissioned physicians for assistance in the study of these cases.

Performance of Wassermann Tests.

It has been arranged for Wassermann tests to be made at a central laboratory for cases in certain military hospitals where the necessary facilities are absent.

Testing of Salvarsan Preparations.

The direction of the biological testing of salvarsan preparations manufactured in England and France and sold in this country under licence of the Board of Trade has been undertaken by the committee at the request of the Board. The tests are performed by experts approved by the committee and a certificate signed by the secretary of the committee is issued to allow the sale of each batch of which samples have passed satisfactorily the proper tests. The out-of-pocket expenditure incurred in the testing is charged to the manufacturers.

General.

Upon request from Colonel Sir William Leishman, in his capacity of Adviser in Pathology to the Expeditionary Force, reports have been obtained from expert sources upon particular questions, or special inquiries instituted, and the results have been or will be transmitted to him for use. Among the subjects already dealt with have been those of "trench rheumatism," prophylaxis for dysentery, and the prevention of fly-borne diseases.

The committee have made arrangements to assist medical officers working overseas in following the after-history of certain groups of cases after arrival in this country.

THE MEDICAL OFFICERS' ADMINISTRATIVE DUTIES IN RESPECT OF THE PERSONAL BELONGINGS OF THE WOUNDED.

A good deal of complaint has been made about the loss of personal belongings by the wounded during their transport to the rear. This has, of course, happened in every war, is happening undoubtedly in this one, and we are informed on high military medical authority is receiving the most anxious consideration on the part of the authorities to ascertain the cause with a view to its prevention.

From the letter of "An Officer" in the *Times* of May 6th, supported by other testimony, it would appear that the loss usually takes place not in the field but in the field ambulances and the clearing hospitals. He reached the field ambulance with all his belongings strapped to his person, and they were laid by his side during the night, but on his removal next day he was told that they could not be taken on the stretcher with him as it was "against the order." On his refusing to be moved without them, the medical officer in charge finally gave the required permission, and they reached the clearing hospital with him, and were again deposited alongside of him. The following morning the difficulty recurred, and he had "an extremely heated argument with the R.A.M.C. Captain on the subject," but eventually he succeeded in getting his way and he finally had the good fortune to reach his destination with his personal belongings, field-glasses, revolver, haversack containing his money, and so forth, in his possession. There is, however, considerable testimony that many less determined officers, or officers perhaps whose condition was too grave to render such opposition possible, have lost all their belongings. Indeed, one instance is related in the *Times* of the following day, of an officer who, having thus lost all his equipment, claimed, and was granted, £50 compensation from the War Office. Whichever way it is looked at, the wastage thus involved is deplorable. To replace field-glasses, revolvers, and other necessary equipment is a serious and unnecessary tax upon the financial resources of the individual officer; on the other hand, if all officers thus despoiled are to be compensated out of public money it will become an impost as wanton as it should be unnecessary on the public who have to pay the piper. Now, in part, of course, blame attaches to all officers who do not have their property ineffaceably engraved with their name, rank, and regiment, to facilitate their eventual return in case of their going astray, and we are informed that this is the case in very many instances. On the other hand, it is noticeable that the loss is attributed to "orders" about not carrying things on stretchers, and their rigid and perhaps undiscriminating enforcement by medical officers in charge. It is quite understandable that the carrying of heavy packages on the stretcher should be forbidden for obvious reasons; but surely the personal military equipment of an officer should be allowed to accompany him. It is possible that the instances are due to a misapprehension on the part of the medical officer of the significance of the order. This is one of the multitudinous but inevitable extra professional duties of the medical officer which can be mastered only by military training, a fact that is entirely overlooked by those medical men who seem to think that the sole difference between a military medical officer and a medical man exercising his profession in civil life is that the former is engaged merely to practise medicine and surgery on soldiers under conditions of personal strain and danger, instead of on civilians under the ordinary conditions of civil life. But a little reflection will make it obvious that this and many other duties relating to the entire charge of soldiers and their equipment when *hors de combat* must be undertaken by the medical officers or not at all. It would be impossible to have a double staff of officers without greatly increasing expense, overlapping of energy, and division of authority. This system was tried under the old Medical Staff Corps and broke down egregiously. The present difficulty no doubt largely arises from the unprecedented necessity for extemporising a large number of military medical officers, who being unacquainted with all the details of medical military administration, as distinguished from professional services, can hardly do otherwise than interpret the former part of their duties without adequate data for sound judgment.

SOLDIERS' FOOD.

An Army Order issued on May 14th states that in order to make further provision for varying the dietary of units at the discretion of their commanding officers, it has been decided that from May 22nd an additional cash allowance of 1½*d.* per diem will be issued in lieu of ¼ lb. of bread, 1 oz. of cheese, and 1 oz. of jam now drawn by troops at home.

The modified field service scale of rations issuable at home in kind will be as follows:—

1 lb. fresh meat or 1 lb. preserved meat.	½ oz. tea.
1 lb. bread or ¾ lb. biscuit or 1 lb flour.	2 oz. sugar.
2 oz. bacon.	½ oz. salt.
	1·20 oz. mustard.
	1·36 oz. pepper.

When this ration is drawn a cash allowance of 5½*d.* a day will be issuable. It will be drawn by the officer commanding on the basis of the number of rations drawn in kind, and will be expended by him solely on messing.

In regard to this order it is well known that it is an erroneous policy to furnish too cheap or monotonous a diet, because its adoption tends to encourage disease and render the men unfit. It is to be hoped that the opportunity of varying the diet, furnished by this money allowance, will help to make the food more interesting, a matter of some physiological importance. It should also enable the substitution to be made of articles of equal nutrient value, as for example eggs for cheese, or peas and beans for cereals.

MILITARY MEDICAL OFFICERS AND CONTRIBUTIONS TO MEDICAL JOURNALS.

A large number of military medical officers do not seem to be aware that the King's Regulations prohibit the sending direct to medical journals of articles intended for publication. The War Office has hitherto been lenient in allowing us to submit such articles for approval before publication, but we have been requested to state that Paragraph 453 of the King's Regulations and Orders for the Army requires that such articles should be transmitted through the officer's commanding officer to the War Office, with a request that, if approved, it be forwarded by the War Office to the journal. This regulation applies not only to regular officers but to temporary officers, officers of the Special Reserve and of the Territorial Forces, and it includes all professional communications and case reports from military hospitals or affecting soldiers, as well as accounts of military organisations, hospitals or movements. The Regulation reads as follows:—

453. An officer or soldier is forbidden to publish in any form whatever, or communicate, either directly or indirectly, to the press, any military information, or his views on any military subject, without special authority; and an officer or soldier will be held responsible for all statements contained in communications to his friends which may subsequently be published in the press or otherwise. He is not to prejudge questions which are under the consideration of superior

military authority by the publication, anonymously or otherwise, of his opinions, and he is not to take part, in public, in a discussion relating to orders, regulations, or instructions issued by his superiors.

Any information of a professional nature which he may acquire while travelling or employed on duty is to be regarded as the property of the War Department, and is not to be published in any form without the previous sanction of the Army Council, or in India of the Commander-in-Chief.

When application is made for permission to publish any article, &c., the document will be either typewritten or in proof form, and will be submitted in duplicate direct to the War Office (or in India to the Commander-in-Chief). A statement will be enclosed from the authority (if any) under whom the applicant is immediately serving that such authority has no objection to permission being applied for. One of the copies will be retained at the War Office or by the Commander-in-Chief in India, as the case may be, for reference. Permission to publish will apply only to the article, &c., as submitted, and no alterations therein, except of a purely editorial nature, and no additions thereto are to be made subsequently without the authority of the Army Council (or in India of the Commander-in-Chief).

It is added that permission to publish the article will not convey official endorsement of its contents, and that no statement tending to imply official approval or endorsement is to be included in any part of the publication.

BRITISH RED CROSS AND THE ORDER OF ST. JOHN.—The work that is now being done by these combined organisations is truly enormous. The Hon. Arthur Stanley, M.V.O., M.P., the chairman of the Joint War Committee, writes to the *Times* that not only in France and Belgium are continuously increasing demands making themselves felt, but they have also had to follow the progress of our troops and those of the Allies abroad, so that Malta, Egypt, the Dardanelles, East Africa, Rhodesia, Serbia, and Montenegro are among the countries that look to it for help in addition to the 900 hospitals at home to which it supplies stores, motor ambulances, &c. The ever-increasing activities entail a constantly increasing expenditure, which amounts at the present to about £3000 a day.

Lord Lansdowne has been elected chairman of the British Red Cross in the room of the late Lord Rothschild.

THE ZEPPELIN THREAT: SURGICAL FIRST AID FOR THE METROPOLIS.—London passed recently into and out of a Zeppelin scare, and it seems to us that the insouciance of the moment is almost as inexplicable as the panic which preceded it. Germany possesses Zeppelins, it is proved that they can easily reach London, and we know that the Germans would love to learn of their arrival. On the other hand, the metropolis is believed to be as adequately armed as possible against aerial attack. But supposing a raid should occur, it is well that it should be widely known that the medical profession has made certain preparations that are sure to be very useful. Existing organisations, it was felt, might not be able adequately to cope with a sudden demand for first aid to a large number of injured civilians, and in order to meet such an emergency the following steps have been recommended and adopted by the Royal Society of Medicine: To ascertain what hospitals, infirmaries, and dispensaries could do in the event of civilians being injured in their neighbourhood, firstly, in the matter of provision for first aid, how many individuals they could receive and treat, then to be transferred as quickly as possible to their homes, to hospitals, or to nursing homes; and secondly, how many they could receive for complete treatment. A map of the London area has been prepared and marked, showing these receiving centres with the number of cases receivable. If the map revealed that any district had no receiving centre, say within a radius of one mile, application was made to the local authorities inviting them to provide some suitable place—a town hall, a public bath, a library, or a school—to which the police and helpers might be directed to convey the injured. The local authorities would provide an adequate supply of the material required for first aid, and the committee have drawn up a list of such material with prices, and have arranged with some surgical supply company to provide at cost price. Emergency centres have been marked on the map, and copies of the map or full topographical particulars have been sent to every police office. If police offices are not already supplied with a map showing the position of every ambulance, whether County Council, St. John, or Bischoffsheim, such maps can be supplied. A list of surgeons, general practitioners, and district nurses willing to help in each district has been prepared, with names and full addresses, and (when possible) telephone numbers, and a copy of each district list has been sent to each police office in the district.

The scheme, we are informed by Mr. J. Y. W. MacAlister, upon whom the organisation has devolved, originated in a suggestion made by Dr. H. Moreland McCrea, and a similar scheme has been organised for the East Coast with the coöperation of the War Office.

VACANCIES FOR MEDICAL OFFICERS.—We are informed that there are still a few vacancies for medical men wishing to take commissions in the 1st London (City of London) Sanitary Company. The duties of this company consist in organising and supervising the sanitary work of the army at the front and at home. It is desirable, therefore, that medical men applying for commissions in this company should have a knowledge of sanitation. The posts are especially suitable for men in the public health or education service, who can be released by their councils for military work. Those joining at once may expect to be ordered abroad at an early date. Applications for commissions should be made to the Officer Commanding, 1st London (City of London) Sanitary Company, Room B.6, Duke of York's Headquarters, Chelsea, London, S.W.

BEHIND THE BATTLE LINES IN FRANCE.—A report has been issued on three months' work carried on by the War Victims' Relief Committee of the Society of Friends. In response to an appeal from the Prefect of the Marne the Society of Friends undertook the administration of a maternity hospital at Châlons, a town famed in history as the site of the great battle in which Attila and his Huns were defeated by the Romans in 451. The hospital has been established on the initiative of Dr. Hilda Clark in a pavilion of the Asile des Vieillards et Hospice de Mendicité, an institution for homeless old people of the department. After necessary alterations had been made and much cleaning done it was opened on Dec. 6th. On the first floor are two long wards containing 28 beds in all, with a small ward partitioned off it. Below on the ground floor is the crèche to which older children may be brought. Here within sound of the guns, but in peace and comfort, the mothers rest, and here their babies are born. This maternity home is for those whose homes have been destroyed, the majority being refugees from the Ardennes or from Rheims and the occupied portion of the Marne. The total number of babies born was 63; no illness had occurred attributable to the confinement. Excellent work in various ways is carried on from this centre. An out-patients' department has been opened. Wooden huts have been built and roofless cottages repaired for those who have had their homes ruined. It is intended to render relief by the distribution of seeds, so that some at least of the vegetables upon which the people depend so largely for food will be available. The members of the expedition numbered originally 32, half of whom were doctors and nurses. Since leaving England at the beginning of November the numbers have been increased to some 70 workers, by whom much is being done to help the civil population who have suffered so cruelly from the effects of the war. The relations with the French military doctors have been most pleasant, and every assistance has been given by the officials, who fully appreciate these practical expressions of sympathy.

THE VOLUNTARY AID DETACHMENTS.—The Voluntary Aid Detachments are sending volunteers to fill the ranks of nurses in the army, and numerous applicants have been critically interviewed by a Standing Committee at Devonshire House. The members of these detachments must have leave to apply from their commandant and county director. They must hold first aid and home nursing certificates, wear the regulation uniform, live under military discipline, and be inoculated against typhoid fever. After a month's probation they are called upon to sign for one year or the duration of the war. A salary of £20 a year is offered, and travelling, board, lodging, and washing expenses are paid, an allowance being made also of £1 per quarter for maintenance of the uniform.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—A Comitia was held on May 13th, Dr. Frederick Taylor, the President, being in the chair. The following Members, who were elected to the Fellowship at the last meeting, were admitted as Fellows of the College: Dr. Archibald Donald, Dr. George Gavin Morrice, Dr. Thomas Beattie, Dr. Noel Dean Bardswell, Dr. Frank Cecil Eve, Dr. John Hay, Dr. George William Watson, Dr. Reginald Charles Jewesbury, Dr. Edwin Greaves Fearnsides, Dr. John George Adami, and Dr. Grafton Elliot Smith. There being no further business the President dissolved the Comitia.

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At a meeting of the Comitia of the Royal College of Physicians of London on April 29th, and of the Council of the Royal College of Surgeons on May 13th, diplomas of L.R.C.P. and M.R.C.S. were respectively conferred upon 103 candidates (including two ladies) who have passed the Final Examination of the Conjoint Board in Medicine, Surgery, and Midwifery, and have complied with the by-laws. The following are the names and medical schools of the successful candidates:—

Alan Colpitts Ainsley, B.A. Cantab., Cambridge University and London Hospital; William Guy Embleton Allen, St. Bartholomew's Hospital; David William Jabez Andrews, Middlesex Hospital; Frank Longstaff Apperly, B.A. Oxon, Oxford and Dublin Universities; Joseph Herbert Bayley, London Hospital; William Kenneth Bigger, B.A. Cantab., Cambridge University and St. Thomas's Hospital; Cyril Mary Brophy, University College Hospital; Johannes Karel Joseph Chambry, Amsterdam and St. Mary's Hospital; Francis Bernard Chavasse, B.A. Oxon., Oxford and Liverpool Universities; Percival Cheal, London Hospital; Ying-Jue Cleh, King's College and St. Thomas's Hospital; Eric Clarence Cline, Guy's Hospital; Hugh Michael Collins, Madras and London Hospital; Wilfred Leigh Cox, Middlesex Hospital; Reginald Curle, Guy's Hospital; Edmund Sheppard Cuthbert, St. Bartholomew's Hospital; Ernest Ivon Davies, Cardiff and Charing Cross Hospital; John Kenyon Davies, Cardiff and St. Bartholomew's Hospital; Wilfred Angel Easton and Cyril Henry Edwards, L.D.S. Eng., Guy's Hospital; Moustafa Fahmy, Cairo and London Hospital; Nashed Fahmy, Cairo and King's College Hospital; Israel Feldman, jun., and Israel Feldman, sen., London Hospital; Francis John Folinsbee, M.D. West. Univ., Western University; Annie Mary Cecilia Forster, Royal Free Hospital; Harold Gardiner-Hill, B.A. Cantab., Cambridge University and St. Thomas's Hospital; George Cowley Gell, L.D.S. Eng., Middlesex Hospital; Colin Charles Gordon Gibson, Guy's Hospital; Bernard Heynes Greensill, Birmingham University; John Richard Griffith, B.A. Cantab., Cambridge University and St. Bartholomew's Hospital; Harold Stanley Groves, Guy's Hospital; William Tudor Gwynne-Jones, London Hospital; George Habgood, B.A. Cantab., Cambridge University, and London Hospital; Stanley Allman Hall, Middlesex Hospital; Robert Hargreaves, B.A. Cantab., Cambridge University and University College Hospital; Cyril Edward Harrison, Middlesex Hospital; Henry Saumarez Hensman, Madras and London Hospital; Rupert Conrad Hewitt, B.A. Cantab., Cambridge University and St. Thomas's Hospital; Wallace Hillbrook, B.A. Cantab., Cambridge University and St. George's Hospital; Richard Annesley Holmes, L.M.S.S.A. Lond., Guy's Hospital; Rhys Bevan John, B.A. Oxon., Oxford University and Westminster Hospital; David Rees Jones and Nicholas Edward Kendall, Guy's Hospital; John Scott Kennedy, Cambridge University and St. George's Hospital; Hugh James McCurrich, Bristol University and St. Bartholomew's Hospital; *Alexander Joseph Victor McDonnell, London Hospital; Archibald McInnis, M.B. Toronto, Toronto University and London Hospital; Samuel Mallinick, Halle and London Hospital; Ganapathy Mallya, Madras and St. Bartholomew's Hospital; Alwyne Harold Manfield, London Hospital; Charles Jennings Marshall, M.D., B.S. Lond., Charing Cross Hospital; Robert Paul Scott Mason, Middlesex Hospital; Bireswar Mitra, L.M.S. Calcutta, Calcutta Medical College and Guy's Hospital; Cotton Grimley Tenison Mosse, B.A. Cantab., Cambridge University and London Hospital; Newman Frederick Norman, St. Bartholomew's Hospital; Duncan Collingwood Ogilvie, Middlesex Hospital; Thomas Owen, Cambridge University and St. Bartholomew's Hospital; Cuthbert Felix Oliver Panditheseker, Ceylon Medical College and University College Hospital; Owen Parry-Jones, London Hospital; Edward Crosby Peers, Guy's Hospital; Walter Spencer Johannes Peiris, Ceylon Medical College and London Hospital; Lloyd Desbat Phillips, University College Hospital; Harold Dobson Pickles, Leeds University; Stanley Victor Percy Pill, St. Mary's Hospital; Raymond Fearle Pinson, Birmingham University; Garnet Wolseley Pool and Charles Leslie Grove Powell, St. Thomas's Hospital; John Wootton Rammell, London Hospital; Douglas Oliver Richards, Guy's Hospital; Arthur Eaton Richmond, St. Thomas's Hospital; Alexander Iskander Rihan, Constantinople and St. Bartholomew's Hospital; Gordon Wilfrid Richard Rudkin, University College Hospital; Basil Sampson, Guy's Hospital; *Saroz Kumar Sanyal, London Hospital; Charles Harley Savory, B.A. Cantab., Cambridge University and St. Bartholomew's Hospital; Ellis Herbert Sydney Scarr, Manchester University; John Godfrey Bradley Smith, St. Bartholomew's Hospital; John Aubrey Brooking Snell, B.A. Cantab., Cambridge University and University College Hospital; Theodore Howard Somervell, B.A. Cantab., Cambridge University and University College Hospital; Hugh Gordon Sparrow, St. George's Hospital and Durham University; George Sydney Stathers, Cambridge University and St. Bartholomew's Hospital; Robert Gee Sterling, London Hospital; David Page Thomas, St. Bartholomew's Hospital; Donald Carmichael Thomas, St. Thomas's Hospital Rufus Clifford Thomas, Westminster Hospital; Humphrey Quentin Forsyth Thompson, Guy's Hospital; Ralph Reakes Thompson, London Hospital; Joseph Russell Tibbles, Aberdeen University and London Hospital; Edgar James Tyrrell, M.B., B.S. Durh., Durham University; John Ernest Alfred Underwood, B.Sc. Lond., University College Hospital; Shankarlal Kunvarji Vaidya, L.M.S. Bombay, Bombay University and London Hospital; William Ernest Wade, Cardiff and Charing Cross Hospital; Percy Wallice, Cambridge University and London Hospital; Karl Johan Fredrik Westman, Guy's Hospital; Edward Scott White, B.Sc. Bristol, Bristol University; Eva Muriel White, Royal Free Hospital; Hugh Anthony Bulstrode Whitelocke, B.A. Oxon., Oxford University and King's College Hospital; John Douglas Wilkinson, St. Thomas's Hospital; Cyril Mathias Williams, Cardiff and St. Mary's Hospital; Gerald Richard Courtenay Wilson, St. Thomas's Hospital; William Bernard Wilson, St. Bartholomew's Hospital; and Guy Walker Woodhouse, B.A. Cantab., Cambridge University and St. Thomas's Hospital.

* Both diplomas conferred on May 13th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—An ordinary meeting of the Council was held on May 13th, Sir Watson Cheyne, the President, being in the chair. Mr. Frederick George Larkin was introduced, and after signing the by-laws and making the required declaration was admitted a Fellow of the College. Mr. J. Hutchinson was introduced, and the President handed to him the Jacksonian prize for the year 1914, together with a document declaratory of the award. Mr. J. F. Colyer was introduced, and the President handed to him the John Tomes prize for 1912–14, together with a document declaratory of the award. It was resolved to issue diplomas of Membership to 103 successful candidates. The secretary reported the delivery of three demonstrations in the Museum by Mr. Shattock, the pathological curator.—At the Primary Fellowship Examination in Anatomy and Physiology held on May 5th, 6th, 10th, and 11th, 42 candidates presented themselves, of whom 33 per cent. were approved and 67 per cent. were rejected. The following are the names and schools of the successful candidates:—

Gustave Adler, London Hospital; Reginald Harold Bridge, M.B., Ch.M. Sydney, Sydney University and Middlesex Hospital; William Bashall Gabriel, Middlesex Hospital; David John Harries, M.D., B.S., B.Sc. Lond., L.R.C.P., M.R.C.S., Cardiff and University College Hospital; Jack Joffe, Guy's Hospital; John Isaie Kühne, King's College; Charles Jennings Marshall, M.D., B.S. Lond., L.R.C.P., M.R.C.S., Cardiff and Charing Cross Hospital; Francis Courtenay Mason, Middlesex Hospital; Arthur Morford, B.Sc. Lond., St. Bartholomew's Hospital; John William Glanmor Phillips, St. Mary's Hospital; Raghunath Dadoba Shirwalkar, B.A. Bombay, Bombay University and University College Hospital; Gilbert Innes Strachan, M.D. Glasg., Glasgow University and Middlesex Hospital; Charles Maitland Titterton, St. Bartholomew's Hospital; and David Percival Dalbreck Wilkie, M.D., Ch.B. Edin., Edinburgh University.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN: SCHOLARSHIP GIVEN BY HER MAJESTY THE QUEEN.—The Queen has given the sum of £250 to pay for the training and expenses of a student at the London (Royal Free Hospital) School of Medicine for Women for a five years' course. The money is part of a gift to the Queen from the wives of Freemasons to help members of the professional classes who may be in difficulties owing to the war. The council of the London (Royal Free Hospital) School of Medicine for Women will award the scholarship in July, 1915, to a student who intends to begin a course of study in the October following. The scholarship will be of the value of £50 a year for five years, subject to the student pursuing her course to the satisfaction of the council. Candidates must have passed a preliminary arts examination recognised for purposes of registration by the General Medical Council, or the London Matriculation, or an examination which gives exemption from it. Forms of application can be obtained from the secretary of the school, and must be returned filled in not later than June 24th, 1915, accompanied by two testimonials, one of which must be from a previous teacher, and by a statement of financial circumstances with special reference to difficulties due to the war. Selected candidates will be interviewed, and a medical certificate of sound health may be required. In the event of the council deeming it necessary, an examination will be held consisting of a general knowledge paper and an essay.

UNIVERSITY OF LONDON, UNIVERSITY COLLEGE.—A new edition of the University College, London, "Pro Patria" is in course of preparation, and will be issued shortly. Past and present students, or their relatives and friends on their behalf, are invited to send full particulars of the capacity in which they are serving the country at the present time. Particulars of rank, ship, and regiment should be addressed to the Publications Secretary, University College, London (Gower-street, W.C.).

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Reconstruction of the Government.

ON Wednesday, May 19th, Mr. ASQUITH announced that steps were in contemplation involving the reconstruction of the Government on a broader political basis.

The Whitsuntide Holidays.

On the same evening both Houses agreed to adjourn for the Whitsuntide holidays until June 3rd.

Immature Spirits and the Preparation of Medicines.

Several times the attention of the Government was drawn during the past week to apprehensions that the compulsory bonding of immature spirits under the Immature Spirits Bill would interfere with the manufacture and use of medicinal preparations in which spirits played a part. Assurances have been given, and amendments introduced into the Bill, for the purpose of making clear that there is no intention that any such interference will take place.

In committee on the Bill in the House of Commons on Monday, May 17th, Mr. GLYN-JONES pointed out that as he read the Bill, laudanum and other tinctures were definitely included in the provision that no immature spirits should be delivered for home consumption. It was true that immature spirits could be by a specified exception supplied to manufacturing chemists for the manufacture of laudanum, but under the Bill they could not deliver it for home consumption for three years.

Sir JOHN SIMON, the Attorney-General, said that the honourable Member feared that the withdrawal of spirits by manufacturing chemists would mean that some heavy duty would be imposed on the spirits that were used in making such things as laudanum. The honourable Member had already the assurance of the Chancellor of the Exchequer that that was not so and an assurance from him also. He again said that it was not so. When the House came to consider the question of the taxes on spirits, the honourable Member would find that there was nothing whatever in the proposals of the Government which would put the manufacturing chemist at a disadvantage as compared with what he was before. The clause did not affect in the least the sale of laudanum by anyone authorised to sell it. The only time when the clause of the Bill would operate was when spirits passed out of a bonded warehouse. Inasmuch as no manufacturing chemist ever made laudanum in bond, he would use the spirit after it had been taken out of bond.

At a later stage, on the motion of Sir JOHN SIMON, an amendment was inserted in the Bill laying down that the restriction against the removal of immature spirits from bond should not apply to spirits delivered for purposes for which they might for the time being be delivered free from all duty "or mixtures, compounds, or preparations in respect of the spirit contained in them or used in their preparation or manufacture."

Mr. GLYN-JONES, commenting on this amendment, said that with words inserted there would be no difficulty about any duty on such a compound as laudanum or other like compounds, and so far as he was concerned about this particular point he had been met. How much further the words went he was not in a position to say.

On Tuesday, May 18th, the Bill was considered on report.

Mr. GLYN-JONES moved to add to Clause 1 the following provision:—

"Nothing contained in this section shall interfere with the supply of rectified spirits of wine for the purpose of making medicines to registered medical practitioners, hospitals, and to persons, firms, and bodies corporate entitled to carry on the business of chemists and druggists."

The honourable Member said that he had received communications from the Pharmaceutical Society of Great Britain and also from the General Medical Council requesting that this alteration should be made in the Bill. They as experts were satisfied that the Bill as it stood seriously interfered with obtaining rectified spirits of wine for the purpose of making medicine. The Pharmaceutical Society had forwarded to him a copy of a letter which it had sent to the Chancellor of the Exchequer. In it it was stated that out of 427 preparations in the Pharmacopœia, in 263 rectified spirits of wine formed a necessary ingredient. As the law now stood it was illegal for anyone to make these preparations without rectified spirits of wine. Out of 20,000 physicians' prescriptions examined 2521 contained Pharmacopœia ingredients made with rectified spirits, and in 343 rectified spirits of wine were actually ordered as a separate ingredient. The British Medical Association had also sent a letter to the Chancellor of the Exchequer saying that they viewed with great concern the provisions of the Bill, inasmuch as it would be impossible for medical men who dispense their own medicines, and also for pharmacists who dispense medicines, to obtain rectified spirits of wine under the Bill as it stood.

Mr. LLOYD GEORGE accepted the provision proposed by Mr. GLYN-JONES. It was embodied in the Bill.

The Bill was afterwards read a third time.

Mental Treatment Bill.

This Bill has been dropped.

HOUSE OF COMMONS.

WEDNESDAY, MAY 12TH.

Motor Ambulances at the Front.

Sir GEORGE SCOTT ROBERTSON asked the Under Secretary for War whether there was a deficiency in motor ambulances for the carrying of British wounded from the front to the hospitals; whether this deficiency was particularly noticeable after the recent fighting at Neuve Chapelle; whether he was aware that charitable organisations anticipated no difficulty in purchasing such ambulances from the manufacturers provided sufficient funds could be collected; and, supposing the facts were as alleged, would he say why the Government failed to provide sufficient mechanical transport for the service of its wounded soldiers.—Mr. TENNANT replied: No, sir, there is no such deficiency, nor is there any truth that it was particularly noticeable after the recent fighting at Neuve Chapelle. On the contrary, I am informed that the work of the motor ambulance convoys throughout the battle was deserving of special praise.

Sir GEORGE SCOTT ROBERTSON: Is it not a fact that the Red Cross Association has made the allegations referred to in the question and has asked for further motor ambulances?—Mr. TENNANT: I have no knowledge of any such allegation being made by the Red Cross Association, and I should be very much surprised if they have made it.

Medical Men in the Ardee Union.

Mr. PATRICK WHITE asked the Chief Secretary to the Lord Lieutenant of Ireland whether, having regard to the prolonged controversy which had existed between the elected representatives of the people of the Ardee union and the Local Government Board regarding the appointment of local doctors and the area of their duties, and to the fact that numerous complaints had been made that the arrangements made by the Local Government Board had worked injuriously to the sick poor, he would appoint a small committee to inquire into the matter and report on it.—Mr. BIRRELL answered: The present medical relief arrangements in the Ardee union have been in operation for the past ten years and are satisfactory as regards the provision made for the medical care and treatment of the sick poor. Ardee union is more favourably circumstanced as regards the number of dispensary doctors employed than most unions in Ireland, and there is no necessity whatever for reopening this question. At the present time, when it is difficult to obtain medical officers for existing dispensaries, the creation of a new office is highly undesirable.

Isolation Hospitals at Hull.

Replying to Mr. GEORGE ROBERTS, Mr. HERBERT SAMUEL (President of the Local Government Board) wrote: I am informed that the following cases were under treatment in the isolation hospitals of the corporation of Kingston-upon-Hull on the 6th inst.:—City Hospital, Hedon-road: measles, 2; scarlet fever, 56; diphtheria, 58; tuberculosis, 22; German measles, 8; German measles and acute rheumatism, 1; German measles and scarlet fever, 1; sent in for typhoid but proved to be scarlet fever, 1; sent in for typhoid but proved to be pneumonia, 1. Evan Fraser Hospital, Sutton: measles, 1; scarlet fever, 47; and diphtheria, 1.

Vaccination against Cerebro-Spinal Meningitis.

Mr. SUTTON asked the President of the Local Government Board whether he was aware that the medical officer of Salisbury had issued a notice to householders advising vaccination against cerebro-spinal meningitis; what was the nature and substance of the vaccine used for the purpose; and could he say how many of the inhabitants of Salisbury had been inoculated at the public expense.—Mr. HERBERT SAMUEL wrote in reply: The answer to the first part of the question is in the affirmative. The vaccine used contains dead meningococci, and was prepared and standardised by the Lister Institute. Approximately 2600 of the inhabitants have been inoculated at the public expense.

THURSDAY, MAY 13TH.

The Mental Treatment Bill.

Mr. RENDALL asked the Under Secretary for War what arrangements had been made by the War Office to provide hospital treatment on purely medical lines for cases of nerve strain among the rank and file where each case might be sifted and diagnosed on arrival in England before being placed in charge of medical officers (Royal Army Medical Corps) who had been taken over from the asylum service.—

Mr. TENNANT said in reply: At large hospital centres in France specialists in nervous diseases not alienists, see all cases of nerve strain and determine to which clearing hospital the cases should be sent on arrival in England. At these hospitals the cases are carefully gone into, and those who are suitable are transferred to certain special hospitals which are quite distinct from what my honourable friend calls the asylum service.

Mr. RENDALL: Will the soldiers who are placed in such hospitals, which are really asylums, have the same right of appeal against decisions as ordinary civilians?—Mr. TENNANT: I do not quite understand the question. Perhaps my honourable friend will put a fresh question.

Mr. RENDALL asked the right honourable gentleman whether he would consider the advisability of providing for the treatment of transiently acute cases of mental disturbance among soldiers by the methods applicable to delirious (toxic) cases in general hospitals, with a view to keeping them apart from lunacy and asylum management.—Mr. TENNANT answered: The cases mentioned in the question are dealt with at either "D" Block, Netley, or Napsbury Military Hospital. These cases are kept absolutely apart from the certified mental cases and the hospitals are under War Office management.

Mr. RENDALL asked the Under Secretary for the Home Department whether he was aware that by the provisions of the Mental Treatment Bill now before the House the soldier disabled by nerve-strain would be liable, when discharged uncured from the army, to be placed, at the discretion of one doctor, for six months under care and treatment in an institution intended for the insane; that there was no provision in the Bill for any appeal to a magistrate; and would he undertake to propose or accept an amendment whereby the ordinary safeguards extended hitherto to all British subjects protecting them from unjust treatment might be made equally applicable for the protection of soldiers.—Mr. CECIL HARMSWORTH replied: I think that my honourable friend has misunderstood the object of the Bill, which was to secure suitable treatment of cases of nerve-strain without compulsory detention, but I need not go further into the matter, as I hope that arrangements for this purpose may now be made without legislation and that it will not be necessary to proceed with the Bill.

Vaccination in Ireland.

Mr. PATRICK WHITE asked the Chief Secretary to the Lord Lieutenant of Ireland, whether the same facilities existed in Ireland as in England to enable conscientious objectors to have their children exempted from vaccination; and, if not, whether, having regard to the growing demand for exemption in Ireland, he would take steps to introduce legislation assimilating the law in the two countries.—Mr. BIRRELL replied: The answer to the first part of the question is in the negative. I am not aware of any general demand for a change in the existing law as regards Ireland, and I do not consider the present a suitable opportunity for legislation on this subject.

Transmission of Disease by Flies.

Mr. BOLAND asked the President of the Local Government Board what steps, if any, had been taken to inform the public as to the danger to health involved in the transmission of disease by flies under existing war conditions; whether any leaflets had been published on the subject, and, if not, whether the leaflet published by the Zoological Society of London would be utilised; and whether steps would be taken to set up a small committee to deal with the subject.—Mr. HERBERT SAMUEL answered: The Board have issued seven reports on "Flies as Carriers of Infection," and they have during the last few years warned local authorities by circular at the beginning of summer of the dangers of allowing accumulations of refuse, which may form breeding grounds for flies, to remain in the neighbourhood of dwellings. They had for some time past been urging individual local authorities who are not dealing satisfactorily with the refuse of their districts, to improve their methods. In a circular letter which is about to be issued, attention will again be drawn to the matter. The War Office and my department are coöperating in this as in other matters affecting the health of the troops and of the civil population. A number of local authorities have issued posters and leaflets on the subject. I am considering the preparation and issue by the Local Government Board of a series of model leaflets on this and other health subjects, which local authorities could use if they so desired.

Lord ROBERT CECIL: Can the right honourable gentleman say whether any communication has taken place between the English and French authorities upon this point?—Mr. HERBERT SAMUEL: Not so far as I am aware.

Cardiff Mental Hospital and the War Office.

Mr. TYSON WILSON asked the Under Secretary for War whether the Cardiff Mental Hospital had been taken over by the War Office for the accommodation of wounded soldiers; and, if so, whether he could say where the patients that were being treated in the hospital had been transferred; and whether arrangements had been made for their relatives to visit them.—Mr. TENNANT furnished the following written answer: The Cardiff Mental Hospital is being taken over. The patients have been removed under arrangements initiated by the Board of Control with the approval of the Home Secretary to the following asylums: Gloucester, Hereford, Monmouth, Newport, Glamorgan, Carmarthen, Brecon, and Radnor. In reply to the last part of the question, the relatives will, of course, have facilities for visiting.

Schools for Mothers.

In the course of the debate on the Education Estimates Mr. J. A. PEASE (President of the Board of Education) made reference to the work that was being done by schools for mothers. Nothing was more important in regard to the prevention of infantile mortality and the preservation of the health of small children than that the mothers should be educated how to rear them. Recently the Local Government Board had been enabled to help forward this work by grants for maternity and child welfare. The Board of Education had been helping something like 151 schools for mothers. In order to prevent overlapping it had been decided that all matters connected with institutions provided by sanitary authorities, as well as matters connected with voluntary infant consultation, should be supported out of grants by the Local Government Board. All matters connected with schools, as defined by the regulations of the Board of Education, should be in the province of the Board of Education. In that way he believed a satisfactory working arrangement would be arrived at which would secure not only a proper bringing up of the children but due attention to health. The great object was to get the children to the schools in a healthy condition. If that was achieved, the children would learn a great deal more, and there would be much less waste of public money than there had been in the past. The demand for women in many directions had produced also a demand for women who had babies or very small children in their homes. One of the great social dangers in the country had been that these children were not properly provided for when their mothers were at work. By a system of crèches which had been supported by the Board of Education and by grants very good work was being done. There were now 77 institutions of this kind in the country. He did not think that the value of that kind of work could be overrated.

Finances of Universities.

Mr. PEASE in a subsequent part of his speech referred to the loss of fees which universities had experienced through the withdrawal of students for war service. Consideration, he said, was being given by a departmental committee which would report to the Treasury on the advisability of enabling the provincial universities other than Oxford and Cambridge to tide over the financial position into which the war had thrown them. He had not much to say with regard to Wales, but in connexion with university work there it was noteworthy that all parties concerned were united in a real endeavour to organise their university education and were now considering the whole matter. In the past months a departmental committee had been sitting to consider the best means of founding a Welsh medical school at Cardiff.

TUESDAY, MAY 18TH.

The Notification of Births Act.

Lord ROBERT CECIL asked the President of the Local Government Board whether, having regard to the importance, especially at the present time, of taking steps to reduce infant mortality, he would consider the desirability of amending the Notification of Births Act so as to confer an express power on local authorities to provide health visitors, maternity centres, and similar arrangements for promoting infant welfare.—Mr. HERBERT SAMUEL replied: There can be no division of opinion as to the great importance of measures for reducing infant mortality, and I may perhaps remind the noble lord that the Government have undertaken to make substantial grants in aid of maternity centres and other agencies for infant welfare, which are approved by the Local Government Board. It would, I think, be an advantage if the Notification of Births Act were amended in the way suggested in the question. Notifications are of little value unless they are followed up by health visiting and by the provision of advice and skilled assistance to mothers. The Act itself confers on local authorities no express power to do this work, and at present recourse has to be had to powers in other Acts which were not framed with infant welfare particularly in view. One result is that the powers of a county council adopting the Act differ from those of a district council. If it were shown that a small amending Bill such as is suggested would meet with general support, I should be glad to consider the early introduction of such a measure.

Rating of Houses used as Hospitals.

Mr. WHELER asked the President of the Local Government Board whether his attention had been called to the

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Reconstruction of the Government.

ON Wednesday, May 19th, Mr. ASQUITH announced that steps were in contemplation involving the reconstruction of the Government on a broader political basis.

The Whitsuntide Holidays.

On the same evening both Houses agreed to adjourn for the Whitsuntide holidays until June 3rd.

Immature Spirits and the Preparation of Medicines.

Several times the attention of the Government was drawn during the past week to apprehensions that the compulsory bonding of immature spirits under the Immature Spirits Bill would interfere with the manufacture and use of medicinal preparations in which spirits played a part. Assurances have been given, and amendments introduced into the Bill, for the purpose of making clear that there is no intention that any such interference will take place.

In committee on the Bill in the House of Commons on Monday, May 17th, Mr. GLYN-JONES pointed out that as he read the Bill, laudanum and other tinctures were definitely included in the provision that no immature spirits should be delivered for home consumption. It was true that immature spirits could be by a specified exception supplied to manufacturing chemists for the manufacture of laudanum, but under the Bill they could not deliver it for home consumption for three years.

Sir JOHN SIMON, the Attorney-General, said that the honourable Member feared that the withdrawal of spirits by manufacturing chemists would mean that some heavy duty would be imposed on the spirits that were used in making such things as laudanum. The honourable Member had already the assurance of the Chancellor of the Exchequer that that was not so and an assurance from him also. He again said that it was not so. When the House came to consider the question of the taxes on spirits, the honourable Member would find that there was nothing whatever in the proposals of the Government which would put the manufacturing chemist at a disadvantage as compared with what he was before. The clause did not affect in the least the sale of laudanum by anyone authorised to sell it. The only time when the clause of the Bill would operate was when spirits passed out of a bonded warehouse. Inasmuch as no manufacturing chemist ever made laudanum in bond, he would use the spirit after it had been taken out of bond.

At a later stage, on the motion of Sir JOHN SIMON, an amendment was inserted in the Bill laying down that the restriction against the removal of immature spirits from bond should not apply to spirits delivered for purposes for which they might for the time being be delivered free from all duty "or mixtures, compounds, or preparations in respect of the spirit contained in them or used in their preparation or manufacture."

Mr. GLYN-JONES, commenting on this amendment, said that with words inserted there would be no difficulty about any duty on such a compound as laudanum or other like compounds, and so far as he was concerned about this particular point he had been met. How much further the words went he was not in a position to say.

On Tuesday, May 18th, the Bill was considered on report.

Mr. GLYN-JONES moved to add to Clause 1 the following provision:—

"Nothing contained in this section shall interfere with the supply of rectified spirits of wine for the purpose of making medicines to registered medical practitioners, hospitals, and to persons, firms, and bodies corporate entitled to carry on the business of chemists and druggists."

The honourable Member said that he had received communications from the Pharmaceutical Society of Great Britain and also from the General Medical Council requesting that this alteration should be made in the Bill. They as experts were satisfied that the Bill as it stood seriously interfered with obtaining rectified spirits of wine for the purpose of making medicine. The Pharmaceutical Society had forwarded to him a copy of a letter which it had sent to the Chancellor of the Exchequer. In it it was stated that out of 427 preparations in the Pharmacopœia, in 263 rectified spirits of wine formed a necessary ingredient. As the law now stood it was illegal for anyone to make these preparations without rectified spirits of wine. Out of 20,000 physicians' prescriptions examined 2521 contained Pharmacopœia ingredients made with rectified spirits, and in 343 rectified spirits of wine were actually ordered as a separate ingredient. The British Medical Association had also sent a letter to the Chancellor of the Exchequer saying that they viewed with great concern the provisions of the Bill, inasmuch as it would be impossible for medical men who dispense their own medicines, and also for pharmacists who dispense medicines, to obtain rectified spirits of wine under the Bill as it stood.

Mr. LLOYD GEORGE accepted the provision proposed by Mr. GLYN-JONES. It was embodied in the Bill.

The Bill was afterwards read a third time.

Mental Treatment Bill.

This Bill has been dropped.

HOUSE OF COMMONS.

WEDNESDAY, MAY 12TH.

Motor Ambulances at the Front.

Sir GEORGE SCOTT ROBERTSON asked the Under Secretary for War whether there was a deficiency in motor ambulances for the carrying of British wounded from the front to the hospitals; whether this deficiency was particularly noticeable after the recent fighting at Neuve Chapelle; whether he was aware that charitable organisations anticipated no difficulty in purchasing such ambulances from the manufacturers provided sufficient funds could be collected; and, supposing the facts were as alleged, would he say why the Government failed to provide sufficient mechanical transport for the service of its wounded soldiers.—Mr. TENNANT replied: No, sir, there is no such deficiency, nor is there any truth that it was particularly noticeable after the recent fighting at Neuve Chapelle. On the contrary, I am informed that the work of the motor ambulance convoys throughout the battle was deserving of special praise.

Sir GEORGE SCOTT ROBERTSON: Is it not a fact that the Red Cross Association has made the allegations referred to in the question and has asked for further motor ambulances?—Mr. TENNANT: I have no knowledge of any such allegation being made by the Red Cross Association, and I should be very much surprised if they have made it.

Medical Men in the Ardee Union.

Mr. PATRICK WHITE asked the Chief Secretary to the Lord Lieutenant of Ireland whether, having regard to the prolonged controversy which had existed between the elected representatives of the people of the Ardee union and the Local Government Board regarding the appointment of local doctors and the area of their duties, and to the fact that numerous complaints had been made that the arrangements made by the Local Government Board had worked injuriously to the sick poor, he would appoint a small committee to inquire into the matter and report on it.—Mr. BIRRELL answered: The present medical relief arrangements in the Ardee union have been in operation for the past ten years and are satisfactory as regards the provision made for the medical care and treatment of the sick poor. Ardee union is more favourably circumstanced as regards the number of dispensary doctors employed than most unions in Ireland, and there is no necessity whatever for reopening this question. At the present time, when it is difficult to obtain medical officers for existing dispensaries, the creation of a new office is highly undesirable.

Isolation Hospitals at Hull.

Replying to Mr. GEORGE ROBERTS, Mr. HERBERT SAMUEL (President of the Local Government Board) wrote: I am informed that the following cases were under treatment in the isolation hospitals of the corporation of Kingston-upon-Hull on the 6th inst.:—City Hospital, Hedon-road: measles, 2; scarlet fever, 56; diphtheria, 58; tuberculosis, 22; German measles, 8; German measles and acute rheumatism, 1; German measles and scarlet fever, 1; sent in for typhoid but proved to be scarlet fever, 1; sent in for typhoid but proved to be pneumonia, 1. Evan Fraser Hospital, Sutton: measles, 1; scarlet fever, 47; and diphtheria, 1.

Vaccination against Cerebro-Spinal Meningitis.

Mr. SUTTON asked the President of the Local Government Board whether he was aware that the medical officer of Salisbury had issued a notice to householders advising vaccination against cerebro-spinal meningitis; what was the nature and substance of the vaccine used for the purpose; and could he say how many of the inhabitants of Salisbury had been inoculated at the public expense.—Mr. HERBERT SAMUEL wrote in reply: The answer to the first part of the question is in the affirmative. The vaccine used contains dead meningococci, and was prepared and standardised by the Lister Institute. Approximately 2600 of the inhabitants have been inoculated at the public expense.

THURSDAY, MAY 13TH.

The Mental Treatment Bill.

Mr. RENDALL asked the Under Secretary for War what arrangements had been made by the War Office to provide hospital treatment on purely medical lines for cases of nerve strain among the rank and file where each case might be sifted and diagnosed on arrival in England before being placed in charge of medical officers (Royal Army Medical Corps) who had been taken over from the asylum service.—

Mr. TENNANT said in reply: At large hospital centres in France specialists in nervous diseases not alienists, see all cases of nerve strain and determine to which clearing hospital the cases should be sent on arrival in England. At these hospitals the cases are carefully gone into, and those who are suitable are transferred to certain special hospitals which are quite distinct from what my honourable friend calls the asylum service.

Mr. RENDALL: Will the soldiers who are placed in such hospitals, which are really asylums, have the same right of appeal against decisions as ordinary civilians?—Mr. TENNANT: I do not quite understand the question. Perhaps my honourable friend will put a fresh question.

Mr. RENDALL asked the right honourable gentleman whether he would consider the advisability of providing for the treatment of transiently acute cases of mental disturbance among soldiers by the methods applicable to delirious (toxic) cases in general hospitals, with a view to keeping them apart from lunacy and asylum management.—Mr. TENNANT answered: The cases mentioned in the question are dealt with at either "D" Block, Netley, or Napsbury Military Hospital. These cases are kept absolutely apart from the certified mental cases and the hospitals are under War Office management.

Mr. RENDALL asked the Under Secretary for the Home Department whether he was aware that by the provisions of the Mental Treatment Bill now before the House the soldier disabled by nerve-strain would be liable, when discharged uncured from the army, to be placed, at the discretion of one doctor, for six months under care and treatment in an institution intended for the insane; that there was no provision in the Bill for any appeal to a magistrate; and would he undertake to propose or accept an amendment whereby the ordinary safeguards extended hitherto to all British subjects protecting them from unjust treatment might be made equally applicable for the protection of soldiers.—Mr. CECIL HARMSWORTH replied: I think that my honourable friend has misunderstood the object of the Bill, which was to secure suitable treatment of cases of nerve-strain without compulsory detention, but I need not go further into the matter, as I hope that arrangements for this purpose may now be made without legislation and that it will not be necessary to proceed with the Bill.

Vaccination in Ireland.

Mr. PATRICK WHITE asked the Chief Secretary to the Lord Lieutenant of Ireland, whether the same facilities existed in Ireland as in England to enable conscientious objectors to have their children exempted from vaccination; and, if not, whether, having regard to the growing demand for exemption in Ireland, he would take steps to introduce legislation assimilating the law in the two countries.—Mr. BIRRELL replied: The answer to the first part of the question is in the negative. I am not aware of any general demand for a change in the existing law as regards Ireland, and I do not consider the present a suitable opportunity for legislation on this subject.

Transmission of Disease by Flies.

Mr. BOLAND asked the President of the Local Government Board what steps, if any, had been taken to inform the public as to the danger to health involved in the transmission of disease by flies under existing war conditions; whether any leaflets had been published on the subject, and, if not, whether the leaflet published by the Zoological Society of London would be utilised; and whether steps would be taken to set up a small committee to deal with the subject.—Mr. HERBERT SAMUEL answered: The Board have issued seven reports on "Flies as Carriers of Infection," and they have during the last few years warned local authorities by circular at the beginning of summer of the dangers of allowing accumulations of refuse, which may form breeding grounds for flies, to remain in the neighbourhood of dwellings. They had for some time past been urging individual local authorities who are not dealing satisfactorily with the refuse of their districts, to improve their methods. In a circular letter which is about to be issued, attention will again be drawn to the matter. The War Office and my department are coöperating in this as in other matters affecting the health of the troops and of the civil population. A number of local authorities have issued posters and leaflets on the subject. I am considering the preparation and issue by the Local Government Board of a series of model leaflets on this and other health subjects, which local authorities could use if they so desired.

Lord ROBERT CECIL: Can the right honourable gentleman say whether any communication has taken place between the English and French authorities upon this point?—Mr. HERBERT SAMUEL: Not so far as I am aware.

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TUESDAY, MAY 18TH.

The Notification of Births Act.

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Rating of Houses used as Hospitals.

Mr. WHELER asked the President of the Local Government Board whether his attention had been called to the

fact that many private houses now being used as hospitals for the wounded in the war were liable to be rated; and whether he would consider introducing a Bill to enable their exemption from rates where the guardians were satisfied that such houses were *bond fide* used solely for such purpose and that only those wounded and those necessarily attendant on them resided therein.—Mr. HERBERT SAMUEL said in reply: If a local authority, in cases of the kind referred to, should see fit to exempt the premises from rating, the Board would not in the present circumstances wish to take exception to such a course.

Medical Officers in Scotland and the War.

Mr. GINNELL asked the Secretary for Scotland to state the number of medical officers of local administrative bodies in Scotland who had volunteered for service in the present war; the number of them serving; and the treatment of them by those bodies generally in regard to continuance of salary, payment of substitute, and keeping their positions vacant for them.—Mr. MCKINNON WOOD wrote in reply: I have no information as to the total number of medical officers of local authorities in Scotland who have volunteered for service. There are, so far as I am aware, 17 public health medical officers, 32 Poor-law medical officers, and 26 school medical officers (of whom some may also be health officers), who are or have been serving. I am informed that their posts are as a rule kept open for them. Health officers either receive full pay and nominate their own substitutes, or if the local authority makes arrangements for carrying on their work, receive full pay less military pay or a part thereof. In the case of the school medical officers, the local authorities have made arrangements to secure them against any financial loss. I have no information as to the financial arrangements in the case of Poor-law medical officers.

The Opium Conference.

Mr. THEODORE TAYLOR asked the Under Secretary of State for Foreign Affairs whether, with a view to restrict the use of morphia to medical and legitimate purposes, it was the intention of the British Government to sign the special protocol prepared as the result of the third Hague Opium Conference in June, 1914, which had already been signed by China, the United States, and the Netherlands.—Mr. PRIMROSE answered: A protocol has been opened at The Hague to receive the signatures of those Powers who intend to put the Opium Convention into force without waiting for the ratification by all the signatory Powers. I do not, however, consider it practicable in the existing circumstances to take any action at present beyond depositing the ratification of the signature of the British delegates, which has already been done. It has been the guiding principle of His Majesty's Government throughout the protracted negotiations that, though fully prepared to make all useful sacrifices in the interests of humanity, they could only secure the objects of the Convention—namely, the suppression of the illicit trade not only in morphia, but also in opium, cocaine, and other noxious drugs—by practically universal international coöperation. The attainment of those objects is not, in the opinion of His Majesty's Government, likely to be hastened by action on their part in the sense indicated by the honourable Member.

WEDNESDAY, MAY 19TH.

Medical Men and War Service.

Mr. JOYNSON-HICKS asked the Under Secretary for War whether he would give the number of doctors in the Royal Army Medical Corps on the active and Special Reserve lists at the present time; and what was the number in the Territorial Medical Corps.—Mr. TENNANT answered: The numbers are as follows:—

Army Medical Service and R.A.M.C.	1008
Re-employed retired R.A.M.C. officers	174
Special Reserve R.A.M.C. officers	623
Temporarily commissioned officers	3100
Territorial Force R.A.M.C.	2122
Total	7027

Mr. JOYNSON-HICKS asked the right honourable gentleman whether some 5000 medical men had volunteered their services during the war, and how many of these were now in actual service; and whether there was any scarcity of medical officers either at home or at the front.—Mr. TENNANT replied: More than 5000 medical men have offered their services, and 3100 have actually been appointed. This is in addition to officers of the Special Reserve. There is not at the moment any scarcity of medical officers either at home or at the front, but a further large number will be required.

Mr. JOYNSON-HICKS further asked the right honourable gentleman whether he could state the number of lieutenants, captains, majors, lieutenant-colonels, and colonels in the Royal Army Medical Corps on July 31st, 1914, and March 31st, 1915, and why there had been no promotions other than those arising in the ordinary course of service from the rank of captain to major.—Mr. TENNANT said in reply: The numbers are:—

	July 31st, 1914.	March 31st, 1915.
Colonels	29	99
Lieutenant-Colonels ...	128	225
Majors	341	185
Captains	379	477
Lieutenants	127	—
Total	1004	986

There have been 14 promotions from captain to major other than in the ordinary course of service.

Appointments.

Successful applicants for vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BLANDY, LIZZIE, M.R.C.S., L.R.C.P. Edin., has been appointed House Surgeon to the Royal Free Hospital.

COX, W. J., M.B., Ch.B. Manch., has been appointed Acting Medical Officer of Health for Luton.

EADIE, W., M.B., Ch.B. Edin., has been appointed Medical Officer of Health and Medical Superintendant of the Fever Hospital, Workington.

HARRIS, DUDLEY RAYMOND, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the New Children's Scattered Home by the Falmouth Board of Guardians.

HUNTER, T. R., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Cardenden District of the county of Fife.

JOHNSTON, G. JAMESON, M.B., F.R.C.S. Irel., has been appointed Honorary Consulting Surgeon to the Royal Hospital for Incurables, Dublin.

JONES, BLACK, M.D. Lond., has been appointed Medical Officer of Health for Builth Wells.

MCDONALD, NIEL, M.B., Ch.B. Manch., has been appointed Resident Medical Officer at the Military Wing of the Royal Free Hospital.

NUNAN, T. J., L.R.C.P. & S. Irel., has been appointed Dispensary Medical Officer for Mountrath.

PIERSE, JOHN A., M.B., B.Ch.N.U.I., has been appointed House Surgeon to the Woolwich Infirmary.

PILLMAN, EMMA C., M.B., B.S., has been appointed House Physician to the Royal Free Hospital.

THOMPSON, J. A., L.R.C.P. & S. Irel., has been appointed Medical Officer for the Tempo Dispensary District by the Enniskillen Board of Guardians.

WELFORD, C. H., M.D. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Staindrop District of the county of Durham.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).
When the application of a Belgian medical man would be considered the advertisers are requested to communicate with the Editor.

ALL SAINTS HOSPITAL FOR GENITO-URINARY DISEASES, Vauxhall Bridge-road, S.W.—House Surgeon for afternoon work only.

ALTON, HANTS, LORD MAYOR TRELOAR CRIPPLES' HOSPITAL.—Two Assistant Resident Medical Officers. Salary as arranged, with board, residence, and laundry.

BIRKENHEAD BOROUGH HOSPITAL.—Female Senior and Junior House Surgeons. Salary £180 and £150 per annum respectively, with board and laundry.

BIRMINGHAM GENERAL DISPENSARY.—Resident Medical Officer, unmarried. Salary £250 per annum, with apartments, attendance, &c.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Senior House Surgeon. Salary £110 per annum, with board, residence, and attendance.

BOLTON INFIRMARY AND DISPENSARY.—Third House Surgeon. Salary £170 per annum, with apartments, board, and attendance.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £120 per annum, with board, residence, and laundry.

BRIGHTON COUNTY BOROUGH ISOLATION HOSPITAL.—Resident Medical Officer. Salary £200 per annum, with board and lodging.

BRISTOL GENERAL HOSPITAL.—House Surgeon and Casualty House Surgeon, both for six months. Salary at rate of £150 per annum, with board, residence, &c.

BRISTOL ROYAL INFIRMARY.—Throat, Nose, and Ear House Surgeon for six months. Salary at rate of £120 per annum, with board, apartments, and laundry.

BURNLEY, VICTORIA HOSPITAL.—House Surgeon. Salary £135 per annum, with residence, board, and washing.

BURY INFIRMARY.—Senior and Junior House Surgeons. Salary £175 and £150 per annum respectively, with board, residence, and washing.

BUXTON, DERBYSHIRE, DEVONSHIRE HOSPITAL.—Assistant House Physician for six months. Salary £100 per annum, with apartments, board, and laundry.

CAMBRIDGE, ADDENBROOKE'S HOSPITAL.—Honorary Assistant Surgeon for Ear, Nose, and Throat Department. Also Honorary Assistant Surgeon for Ophthalmic Department.

CARDIFF, WELSH METROPOLITAN WAR HOSPITAL, Whitchurch, near Cardiff.—Junior Resident Surgeon. Salary at rate of £1 per day, with board, lodging, &c.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary £200 per annum, with apartments (not board).

CARMARTHEN, JOINT COUNTIES ASYLUM.—Temporary Second Assistant Medical Officer. Salary at rate of £200 per annum, with board, lodging, washing, &c.

CITY OF LONDON LYING-IN HOSPITAL, City-road, E.C.—Resident Medical Officer for four months.

DUMFRIES, CRICHTON ROYAL.—Temporary Assistant Physician, unmarried. Salary at rate of 5 guineas a week, with apartments, board, laundry, and attendance.

EALING, BOROUGH OF.—Medical Officer of Health and School Medical Officer. Salary £700 per annum.

EDMONTON MILITARY HOSPITAL.—Assistant Surgeons and Physicians Salary £1 daily, with residence, board, and lodging.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—House Physician for six months. Salary at rate of £150 per annum, with board, apartments, and washing.

FOLKESTONE, ROYAL VICTORIA HOSPITAL.—House Surgeon. Salary as agreed, with board, residence, and laundry.

GLASGOW FEVER HOSPITALS.—Physician Superintendent. Salary £600 per annum, with free house.

GLASGOW ROYAL MATERNITY AND WOMEN'S HOSPITAL, OBSTETRICAL DEPARTMENT.—Two Indoor House Surgeons and Two Outdoor House Surgeons. Also One Female Outdoor House Surgeon at West End Branch. All for three months.

GRAVESEND HOSPITAL.—House Surgeon. Liberal salary, with board, residence, and washing.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £150 per annum, with board, residence, and laundry.

HARROGATE INFIRMARY.—Resident House Surgeon. Salary £100 per annum.

HULL ROYAL INFIRMARY.—House Physician, unmarried. Salary £105 per annum, with board and apartments. Also Assistant House Surgeon. Salary at rate of £100 per annum, with board and lodging. Also Casualty House Surgeon. Salary at rate of £80, with board and lodging.

KING EDWARD VII. SANATORIUM, Midhurst, Sussex.—Second Assistant Medical Officer. Salary £150 per annum, with board, lodging, and attendance.

LANCASTER COUNTY ASYLUM.—Temporary Assistant Medical Officer. Salary 6 guineas per week, with board, &c.

LEEDS CITY.—Medical Assistant in Public Health Department. Salary £350 per annum.

LIVERPOOL, ROYAL SOUTHERN HOSPITAL.—Honorary Assistant Laryngologist for Ear, Nose, and Throat Department.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—Lecturer in Physics.

MANCHESTER, ANCOATS HOSPITAL.—Senior House Surgeon. Salary £100 per annum. Also House Physician. Salary £80 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury, Gartside-street.—Medical Officer for Out-patients' Department. Salary £180 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN. Park-place, Cheetham Hill-road.—House Surgeon. Salary £120 per annum, with apartments and board.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Fitzroy-square, W.—House Surgeon. Salary £150 per annum. Also Honorary Anæsthetist.

NEWCASTLE-UPON-TYNE, POOR-LAW INSTITUTION AND INFIRMARY, Westgate-road.—Assistant Resident Medical Officer, unmarried. Salary at rate of £250 per annum, with apartments, rations, and washing.

NORTHUMBERLAND, CHILDREN'S SANATORIUM, Stannington.—Female Resident Medical Officer. Salary £200 per annum, with board and washing.

NOTTINGHAM CHILDREN'S HOSPITAL.—Female House Surgeon. Salary at rate of £150 per annum, with apartments, board, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Temporary Surgeon in Charge of Out-patients.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Surgeon. Salary £120 per annum, with board, residence, and washing.

PORTSMOUTH WORKHOUSE INFIRMARY, WORKHOUSE, AND CHILDREN'S HOME.—Female Second Assistant Medical Officer. Salary £150 per annum, with apartments, rations, &c.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—House Physician and House Surgeon for six months. Salary £100 per annum, with board, residence, and washing. Also Assistant Physician.

ROTHERHAM HOSPITAL.—Junior House Surgeon. Salary £125 per annum, with board, lodging, and washing.

ROYAL ARMY MEDICAL CORPS (TERRITORIALS), THIRD 1ST HOME COUNTIES FIELD AMBULANCE, FOREIGN SERVICE UNIT, Maidstone.—Medical Officers.

ROYAL NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, W.—Resident Medical Officer.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Resident Medical Officer and Assistant Resident Medical Officer. Salary at rate of £110 and £90 per annum respectively, with board, residence, and laundry.

SALISBURY GENERAL INFIRMARY.—House Surgeon and Assistant House Surgeon, unmarried. Salary £150 and £100 per annum respectively, with apartments, board, lodging, and washing.

SCARBOROUGH BOROUGH.—Temporary Medical Officer of Health. Salary at rate of £400 per annum.

SERRIA, ROADSIDE DISPENSARIES.—Medical Women. Salary £40 for three months.

SHEFFIELD ROYAL INFIRMARY.—House Surgeon and Assistant House Physician. Salary £100 per annum, with board and residence.

SHEFFIELD, WHARNCLIFFE WAR HOSPITAL, Middlewood-road.—Resident Medical Officers.

SHREWSBURY, ROYAL SALOP INFIRMARY.—House Physician. Salary at rate of £110 per annum, with board and apartments.

SOUTHAMPTON, PARISH INFIRMARY, Shirley Warren.—Resident Assistant Medical Officer. Salary £200 per annum, with apartments, rations, washing, and attendance.

SOUTH SHIELDS, INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Female House Surgeon. Salary £150 per annum, with residence, board, and washing.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

SWANSEA EDUCATION COMMITTEE.—Temporary Assistant School Medical Officer. Salary £300 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House Physician. Salary £125 per annum, with board, apartments, and washing.

VENTNOR, ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST ON THE SEPARATE PRINCIPLE.—Assistant Resident Medical Officer, unmarried. Salary £150 per annum, with board, lodging, &c.

WALSALL AND DISTRICT HOSPITAL.—Assistant House Surgeon and Anæsthetist. Salary £150 per annum, with board, residence, and laundry.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary at rate of £120 per annum, with board, apartments, and laundry.

WARRINGTON, LORD DERBY WAR HOSPITAL.—Resident Physician.

WEST BROMWICH AND DISTRICT HOSPITAL.—House Surgeon and Assistant House Surgeon, unmarried. Salary £150 and £120 per annum respectively, with residence, board, and laundry.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Resident Medical Officer. Salary £160 per annum. Also House Physicians. Salary £120 and £100 per annum, with board, residence, and washing.

WEST HAM UNION.—Second Assistant Resident Medical Officer and Fourth Female Assistant Medical Officer at Infirmary, Whipps Cross-road, Leytonstone, N.E. Salary £250 and £160 per annum respectively. Also Deputy Resident Medical Officer at Sick Home, 95, Forest-lane, Forest Gate, E. Salary £250 per annum. Also Female Assistant Medical Officer at Workhouse, Union-road, Leytonstone, N.E. Salary £140 per annum. Each with usual residential allowances.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £150 per annum, with board, apartments, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer and House Surgeon for six months. Salary at rate of £150 per annum, with board, rooms, and laundry.

WORCESTER, CITY AND COUNTY BOROUGH OF.—Female Assistant Medical Officer. Salary £300 per annum.

WORCESTER GENERAL INFIRMARY.—Resident Medical Officer. Salary £150 per annum, with board, residence, and washing.

WREXHAM INFIRMARY.—Resident House Surgeon. Salary £125 per annum, with board, lodging, and washing.

YORK RETREAT.—Junior Assistant Medical Officer. Salary £200 to £225 per annum, with board, lodging, &c.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies for Certifying Surgeons under the Factory and Workshop Acts at Houghton-le-Spring, in the county of Durham; at Swords, in the county of Dublin; and at Earls Barton, in the county of Northampton.

Births, Marriages, and Deaths.

BIRTHS.

BAYNE.—On May 13th, at Hollingwood, Oldham, the wife of Arthur Munby Bayne, M.B., of a son.

CARNARVON BROWN.—On May 12th, at Egdean, Sevenoaks, the wife of A. Carvarvon Brown, M.R.C.S., late of India, of a son.

FOREMAN.—On May 16th, at White Hall, Stourwood-avenue, Bournemouth, the wife of Mr. J. E. Foreman, of a daughter.

KEELING.—On May 16th, at Market Bosworth, the wife of Hugh Nevill Keeling, M.R.C.S., L.R.C.P. Lond., of a son.

MARRIAGE.—On May 15th, at Harley-street, London, W., the wife of Herbert J. Marriage, M.B., B.S. Lond., F.R.C.S. Eng., of a son.

WOOLLEY.—On May 17th, at Lucknow, India, the wife of Major Jasper M. Woolley, I.M.S., of a daughter.

MARRIAGES.

BARNES—NORMAN.—On May 15th, at St. John's, Angell-town, Brixton, Lieutenant Howell Wood Barnes, M.B. Cantab., R.A.M.C., to Sarah Francis, youngest daughter of Frederick Norman, J.P., F.R.C.S.

HENRY—MILNE.—On May 15th, at St. Luke's Church, Chelsea, Arnold Kirkpatrick Henry, M.B., F.R.C.S. Irel., to Dorothy Kate Milne, M.D., B.Ch.

MONCRIEFF—LONGMUIR.—On May 15th, at the Church of the Holy Trinity, St. Andrews, Surgeon Leonard Alexander Moncrieff, M.B., R.N., to Hilda Constance Arnott, youngest daughter of the late Thomas Longmuir and of Mrs. Longmuir, Howard-place, St. Andrews.

DEATHS.

FIELD.—On April 10th, at Wittenberg, in Saxony, Stephen Field, Captain, R.A.M.C.

GOODDEN.—On May 9th, killed in action, near Ypres, Henry Wyndham Goodden, Lieutenant, R.A.M.C., aged 31 years.

PERN.—On May 9th, killed in action, Lieutenant Montague Pern, R.A.M.C., aged 26 years.

SIMPSON.—On May 10th, at Byron-street, Patricroft, William Allan Simpson, M.B., C.M.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE USE OF CHAMPAGNE IN SURGERY.

To the Editor of THE LANCET.

SIR,—I should like again to invite attention to my favourite treatment of surgical shock by rectal injection of a pint of good dry champagne. Since my first communication on the subject was published in THE LANCET of May 17th, 1913 (p. 1416), in which I dealt with the rapid improvement which followed subcutaneous injections of champagne, some local necrosis of skin followed in some later cases, and I abandoned the method in favour of rectal injection (THE LANCET, Sept. 20th, 1913, p. 863), which I have found equally rapid in action, and equally efficacious, without any after complication whatever. It has been the rule in this hospital during the past two years that in all serious operation cases the sister in charge of the patient brings with her a bottle of champagne and a funnel with long rectal tube to the operating theatre. The moment any evidence of shock appears two assistants promptly separate and elevate the legs and buttocks, and the sister administers the injection (pure). Marked reaction is usually established within three minutes. In my original letter I made a statement, which I am pleased to see confirmed by Lieutenant Haycraft in THE LANCET of March 20th, 1915 (Treatment of Acute Emphysematous Gangrene) that "champagne and pituitary extract is a combination that I can strongly recommend." And in the *British Medical Journal* of Jan. 31st, 1914, I stated: "In serious cases of anteoperative toxæmia we have found the placing of the patients out of doors, immediately after operation, to be of immense service, and during the early convalescent stage in such cases we have experimented purposely, and have proved over and over again that there is no drug or anything else equal to the daily administration of a pint of the best dry champagne."

In conclusion, I need only say that these statements have been emphasised by further experience. Soon after my article appeared in THE LANCET a friend forwarded me a French comic paper, in which were depicted a young lady and gentleman arm-in-arm doing a kind of goose-step out of a doctor's house, apparently full of "beans," after receiving their champagne injections "as recommended by Dr. 'Jhon' O'Conor"!—I am, Sir, yours faithfully,

J. O'CONOR, M.A., M.D. T.C.D.,
Senior Medical Officer, British Hospital,
April 18th, 1915. Buenos Aires.

FLOATING KIDNEY.

A MEDICAL correspondent asks if a floating kidney can be easily diagnosed, and if when diagnosed an operation is indicated. The questions cannot be answered quite briefly. It is certainly possible to diagnose a floating kidney during life, for the normal kidney is capable of very slight movement, while a floating kidney can often be moved many inches from the place where it is found. In many cases it occupies habitually a lower site than normally. The question of operation is by no means easy. While some consider that the results of floating kidney are many and serious, and that in all cases an operation is eminently desirable, these views are not held by perhaps the majority of surgeons or physicians. It is fairly certain that in most cases a floating kidney gives rise to no symptoms, and the patient is none the worse for it, but when a patient is told that she has a floating kidney she begins to have many symptoms, and she ascribes them all to the floating kidney. In the large majority of cases an operation is not needed, and will do no good. It is rarely wise to tell a patient that she has a floating kidney, unless the surgeon or physician is certain that it is giving rise to important manifestations. There is, however, one condition which may be caused by movable kidney which may make an operation necessary. When the altered position of the kidney leads to a kinking of the ureter a hydronephrosis may arise, and this will steadily grow worse unless the kink is done away with.

DR. JOHN GEORGE CHAPMAN.

THE *Nottingham Guardian* of May 4th has published under the heading of "A Nottingham Author and Physician—Friend of George Eliot—Passages from Unpublished Diaries" a long account of a find among the old bookstalls at Sneinton Market, Nottingham. The find consists of some of the diaries of the late Dr. John George Chapman, who was for many years editor of the *Westminster Review* and a London publisher, who was intimately acquainted with many literary people of note, amongst them Charles Dickens and George Eliot, and his acquaintance with George Eliot is described with some detail in the diaries, which are three of Letts's little books dated 1851, 1860, and 1863. Chapman was a very interesting man. He started as a publisher, but took a medical degree at St. Andrews and gave up business. He practised in London at Somerset-street, Portman-square, and became known especially by his persistence in the efficacy of the successful treatment of cholera and diarrhœa by means of the spinal ice-bag, and delirium tremens and the treatment of cerebro-spinal fever by means of ice; also for a new method of treating paralysis by the application of cold or heat along the spine. He also wrote on the abuse of medical charity and on diseases of the nervous system. He died in 1894 in Paris, whither he had retired, as the result of being run over by a cab, and his death was announced in THE LANCET of Dec. 8th of that year.

WHAT IS A CONSULTANT?

To the Editor of THE LANCET.

SIR,—In answer to the question of "Enquirer" in THE LANCET of May 1st (p. 946), I think one may say—in England a consultant may be defined as a medical practitioner, a Fellow or a Member of the Royal College of Physicians or a Fellow of the Royal College of Surgeons, who only sees a patient with, or on the introduction of a general practitioner, and does not attend any patients except in consultation, thus corresponding to the barrister in the sister profession of the law. This is, however, purely a theoretical description, as I do not know anyone in London to whom the description could be applied, although all my medical life has been passed in or near London since 1879. I have heard that one consultant has a notice on his waiting-room table stating that he does not practise as a general practitioner, and I have also been informed that a Guy's man is really a consultant, but I have no experience of these two, and perhaps they may be mythical.

I am, Sir, yours faithfully,
May 12th, 1915. A. CHARPENTIER.

SEVERE ILLNESS APPARENTLY DUE TO EATING RHUBARB.

M. L. J. (Bristol) writes:—"With reference to the letter of 'M.D.' in your issue of May 8th I had a somewhat similar experience, unmistakably due to eating rhubarb, some five years ago. My age then was about 50, and I should say that I have been all my life a sufferer from neurasthenic dyspepsia of an inveterate type, so that for many years the most rigorous expedients in diet have been necessary. One evening I ate some stewed rhubarb. Though it is not easy to produce emesis in me I was vomiting in a few minutes, was purged, and felt very ill. Bicarbonate of soda, with very small doses of liq. bismuthi and tr. opii, combined with copious use of milk (no other drink), raw eggs beaten up, and meat diet, after some days relieved the gastric symptoms, which then took the form of intense renal and vesical irritation, an abnormal quantity of urine being passed, the necessity to micturate obliging me to rise four or five times every night. With persistent use of milk and bicarbonate of soda the symptoms gradually wore off.

I attributed the poisonous effects to the oxalic acid in the rhubarb acting on a highly neurotic, dyspeptic, and gouty diathesis; but it has been suggested that they were possibly due to the effect of the tannic acid in the rhubarb on a gouty subject. Perhaps it was both. I have known of other people who were always made seriously ill by eating rhubarb."

AN INVITATION FROM HARROGATE.

THE Harrogate corporation has issued an invitation to medical men to visit Harrogate at any time during the next 12 months (excluding the period July 15th to Sept. 30th), and they are offered the free and unlimited use of the baths and waters and complimentary facilities and special rates connected with hotel accommodation. The opportunity is thus given of putting the claim to the test in regard to Harrogate taking rank with those well-known continental resorts now closed to the public on account of the war.

A MEDICAL PRACTITIONER'S DAY-BOOK.

Messrs. Robert Gibson and Sons, of 45, Queen-street, Glasgow, have published a convenient day-book (No. 4) of small size for the use of panel practitioners. It measures roughly 4½ by 8½ inches, and each opening is ruled for a month. Provision is made for the entry of 1440 names, with the necessary particulars required by the Insurance Commissioners. The book, which is compact, should serve to reduce the panel practitioner's clerical work. The price is 1*s.* net, or by post 1*s.* 2*d.*

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

FRIDAY.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN (Hon. Secretaries—Philip Turner, J. D. Rolleston, Sidney Gilford): at 4.30 P.M.

Dr. C. O. Hawthorne: Case of Hemiplegia in a Girl aged 8.
Dr. H. Thursfield: Case of Defective Patellæ and Contraction of Limbs.
Dr. E. Pritchard: Cystic Lymphangioma in Infant.
Dr. E. Pritchard and Dr. M. Richards: Case of Polioencephalomyelitis.
Dr. J. D. Rolleston: Case of Ectrodactyly.
Dr. E. L. Goffe: (1) Case of Deformity of the Left Hand with Constriction of the Right Forearm; (2) Case of Dextrocardia. And other Cases.

Specimen:
Dr. P. Figdor: Pericarditis in Diphtheria.

Short Paper:
Dr. C. O. Hawthorne: Case of Tuberculous Meningitis.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

TUESDAY.—2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Dr. Simson: Diseases of Women. Mr. Gibb: Diseases of the Eye.

THURSDAY.—9 A.M., Dr. Bernstein: Bacterial Therapy Department. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Mr. B. Harman: Diseases of the Eye.

FRIDAY.—10 A.M., Dr. Simson: Gynæcological Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Eye Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patients (Mr. E. Gillespie). 2.30 P.M., Medical Out-patients (Dr. T. R. Whipham); Gynæcological Out-patients (Dr. Banister). 3 P.M., Medical In-patients (Dr. R. M. Leslie). 4.30 P.M., Special Lecture:—Dr. J. B. Banister: The Treatment of Puerperal Sepsis.

TUESDAY.—2.30 P.M., Surgical Operations (Mr. Carson). Clinics:—Medical Out-patients (Dr. A. G. Auld); Surgical Out patients (Mr. Howell Evans); Nose, Throat, and Ear Out-patients (Mr. H. D. Gillies). Radiography (Dr. Metcalfe). 3.30 P.M., Medical In-patients (Dr. A. J. Whiting).

WEDNESDAY.—Clinics:—2.30 P.M., Throat Operations (Mr. Gillies). Children Out-patients (Dr. T. R. Whipham); Eye Out-patients (Mr. R. P. Brooks); Skin Out-patients. 5.30 P.M., Eye Operations (Mr. R. P. Brooks).

THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. E. Giles). Clinics:—Medical Out-patients (Dr. A. J. Whiting); Surgical Out-patients (Mr. Carson); Radiography (Dr. Metcalfe). 3 P.M., Medical In-patients (Dr. R. M. Leslie).

FRIDAY.—2.30 P.M., Surgical Operations (Mr. Howell Evans). Clinics:—Medical Out-patients (Dr. A. G. Auld); Surgical Out-patients (Mr. E. Gillespie); Eye Out-patients (Mr. R. P. Brooks).

THE THROAT HOSPITAL, Golden-square, W.

MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.
THURSDAY.—5.15 P.M. Clinical Lecture.

For further particulars of the above Lectures, &c., see Advertisement Pages.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, London, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

THE COLONIAL AND FOREIGN EDITION (printed on thin paper) is published in time to catch the weekly Friday mails to all parts of the world.

The rates of subscriptions, post free from THE LANCET Offices, have been reduced, and are now as follows:—

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TO COLONIAL AND FOREIGN SUBSCRIBERS.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE.

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SOLE AGENTS FOR AMERICA—Messrs. WILLIAM WOOD, AND CO., 51, Fifth Avenue, New York, U.S.A.

METEOROLOGICAL READINGS.

(Taken daily at 9.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 19th, 1915.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
May 13	29·690	S.E.	1·27	55	49	46	46	47	Overcast
,, 14	29·850	N.E.	...	102	55	38	41	43	Cloudy
,, 15	30·200	N.	0·04	94	57	41	43	48	Fine
,, 16	30·010	S.E.	...	95	62	46	49	54	Cloudy
,, 17	29·662	S.W.	0·86	72	58	46	53	57	Overcast
,, 18	29·740	N.E.	0·17	91	50	46	46	46	Raining
,, 19	30·020	N.	...	100	63	46	46	50	Cloudy

The following magazines, journals, &c., have been received:—National Medical Journal, Pediatrics, Tropical Diseases Bulletin, British Journal of Dental Science, Journal of Physiology, Modern Hospital, American Journal of Clinical Medicine, Proceedings of the Royal Society of Medicine, Archives of Pediatrics, Surgery, Gynecology and Obstetrics, American Journal of Surgery, Maryland Medical Journal, Cleveland Medical Journal, Canadian Journal of Medicine and Surgery, Albany Medical Annals, Saint Paul Medical Journal, &c.

Communications, Letters, &c., have been received from—

A.—Messrs. Allen and Hanburys, Lond.; Mr. R. J. Albery, Lond.; Australian Book Co., Lond.; Messrs. Armour and Co., Lond.; Messrs. Arnold and Sons, Lond.; Mr. F. W. Alexander, Lond.; Asylum Workers' Association, Lond., Hon. Secretary of; Addenbrooke's Hospital, Cambridge, Secretary - Superintendent of; Ancoats Hospital, Manchester, Secretary of; Air Pollution Advisory Board of the Manchester City Council, Chairman of.

B.—Mr. A. C. Brown, Sevenoaks; Messrs. Browning and Co., Lond.; Messrs. Blades, East, and Blades, Lond.; Mr. D. Beatton, Scalloway; Messrs. Burroughs Wellcome and Co., Lond.; British Fire Prevention Committee, Lond., General Hon. Secretary of; Mr. Harold Blackett, Eastbourne; Dr. R. H. Bellwood, Ipswich; Dr. W. M. Buchanan, Cardonald; Beaufort War Hospital, Bristol, Secretary of; Birmingham and Midland Hospital for Skin, &c., Diseases, Secretary of; Mr. T. B. Browne, Lond; Mrs. Bendle, Bath; Mr. Rowland Burrows, Lond.; Messrs. Bennett Brothers, Salisbury; Lieutenant J. H. Baldwin, Lond.; Blackburn Guardians, Clerk to the; Messrs. Butterworth and Co., Lond.; Dr. G. Blacker, Southampton; Surgeon-General Sir David Bruce, Lond.

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